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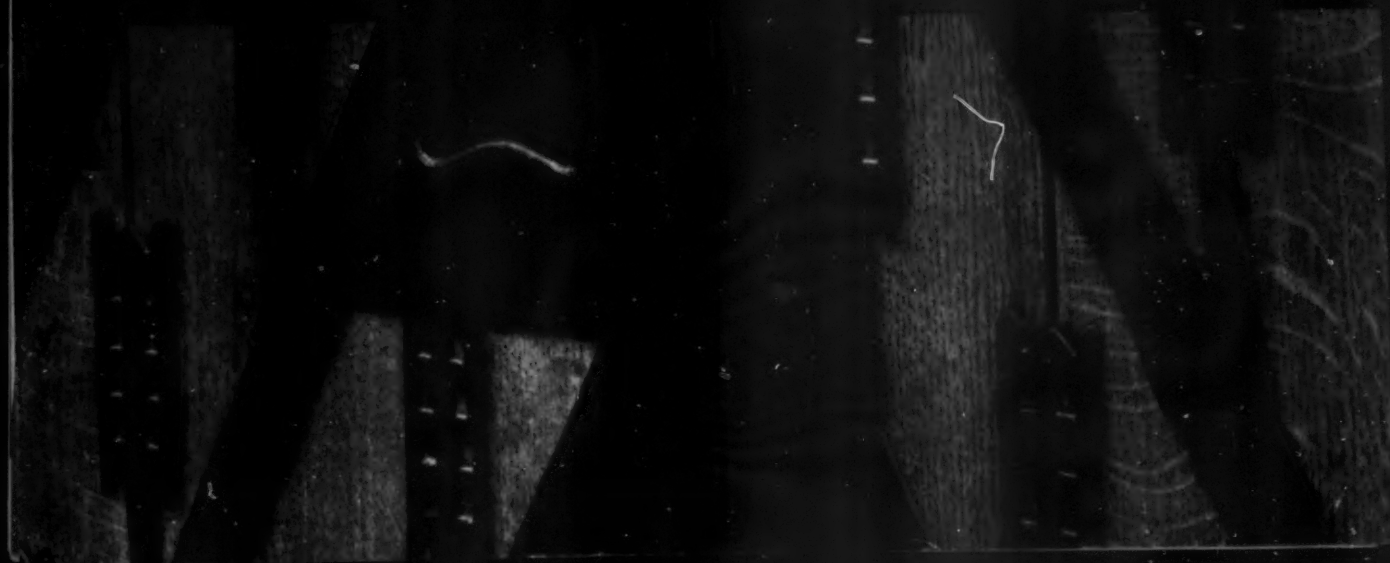
# The Architect & Building News

9 November 1960 V.218/19 1s. Weekly

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Information Digest





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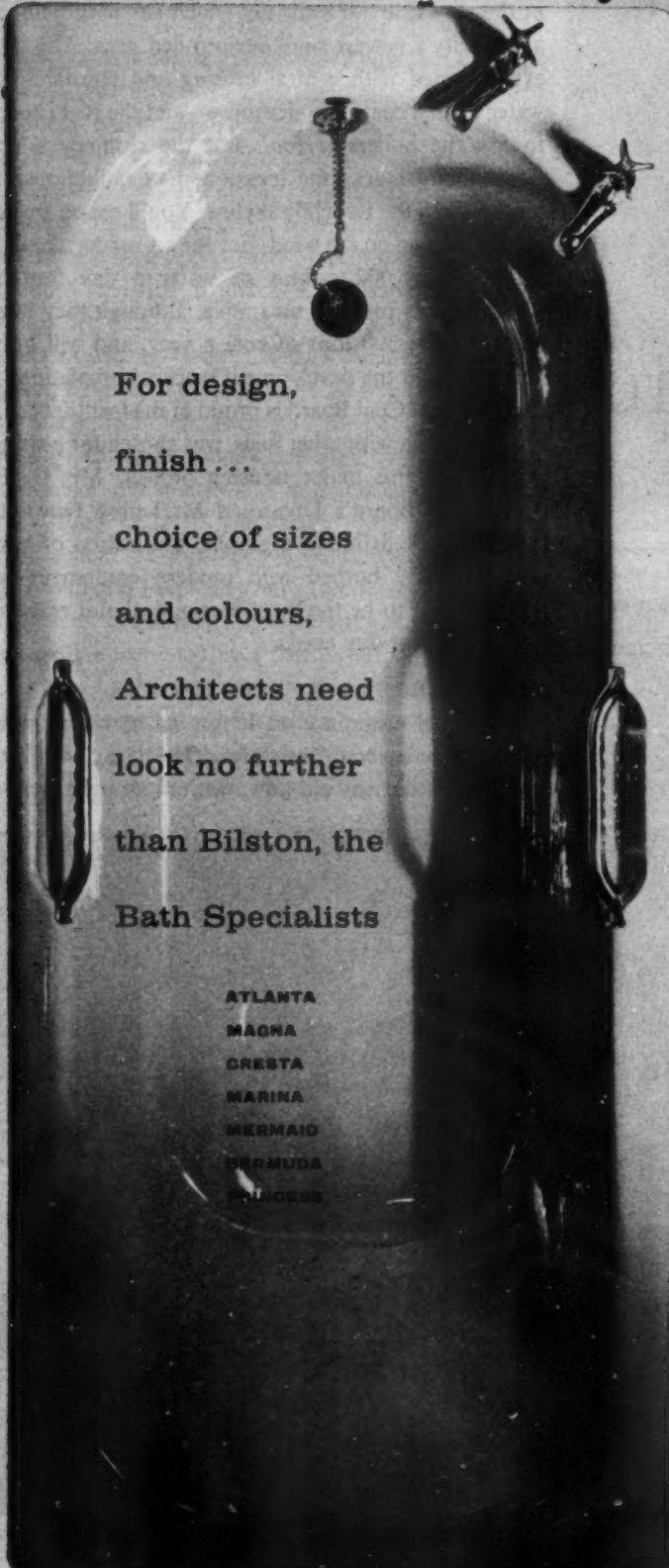
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# Where's the chimney?

**No smoke—no smokestack—  
for Bristol's most modern housing scheme**

The 400 flats of the Redcliffe Precinct development are an impressive new landmark in Bristol, standing at the very heart of a district which has been planned as the city's newest smoke-controlled area. The flats are provided with central heating and constant hot water from a central boilerhouse—and the fuel chosen to fire the boilers is *coal*. But the chimney which traditionally marks the location of a boilerhouse is hidden from the Redcliffe skyline. You'll see no smoke clouds drifting on the wind. For the six modern boilers which heat 6,000 gallons of water a day for the Redcliffe flats produce no smoke, although they have been burning 300 tons of coal a year, and will burn much more as the development reaches completion. The National Coal Board is proud of the fact that coal, in competition with other fuels, was chosen for heating purposes in this major housing project. Mr. D. F. Pexton, the Board's Divisional Marketing Director, looks upon Redcliffe as a graphic illustration of how coal—properly burned with modern equipment—is proving itself to be the most economical and efficient fuel for present-day needs.

## CLEAN AIR

"Smoke and grime are no longer an inevitable outcome of burning coal," he states. "The days of burning any type of coal any old how, without thought for the



*Waring and Francombe Houses, recently completed, together with Underdown House, form the largest single block in the 400-flats first stage of the Redcliffe development.*

power wasted or the smoke produced, are gone. A lot of progress has been made since then in methods of burning, and power engineers now know that the right kind of coal used with the right kind of equipment produces maximum efficiency, maximum value for money—and does not pollute the atmosphere.”

R. W. Gregory and Partners of Manchester acted as Heating Consultants for the scheme, and the Redcliffe boilerhouse is equipped with ‘Suxe’ burners, which are specially designed to burn the cheaper grades of anthracite. This is a naturally smokeless fuel, but all modern furnaces—from the huge chain grate stokers used in large industrial plants to the small installations burning a few hundredweights a week for flat or office heating—can burn bituminous coals without producing smoke. By controlling draughts and regulating combustion rates all the smoky gases given off by burning coal are consumed in the furnace.

This control is frequently fully automatic—as with the Redcliffe boilerhouse, which virtually runs itself. The burners are regulated by a thermostat which operates according to the temperature of the outside air. The colder the temperature out in the open, the more heat the burners produce, and vice versa, thus assuring the tenants of the Redcliffe flats of comfortable living conditions whatever the weather. The burners also bank themselves down automatically at night and open themselves up again in the morning.

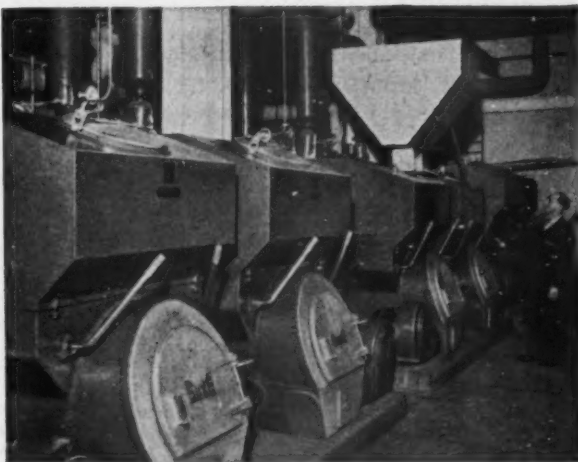
Coal is fed into the boilers by gravity, and one daily filling of the feed hoppers provides sufficient fuel for a whole day's operation. The filling is also done automatically by means of an electrically-driven travelling loader, with push-button controls, which has been specially designed for this boilerhouse. The coal is, in fact, ‘untouched by human hand’ from the time that it is mechanically cut from the coal face until it is burned on the firebeds.

#### NO LABOUR TROUBLES

The boilerhouse, which will eventually provide a central heating system for the whole of the first stage of the Redcliffe development, is located in the basement of Canynge House. Four boilers were originally installed here, two more having since been added to meet peak demands when the scheme is completed. Hot water for domestic purposes and central heating in the newly-completed and separate 170-flat block is pumped by underground pipes from Canynge House. Further



Coal is run simply and quickly through the grate into a hopper below. This hopper holds sufficient anthracite for 2 months' winter consumption. The anthracite is fed by gravity from the hopper into the electrically-driven loader



The modern solid-fuel boilerhouse. The electrically-driven loader feeds each boiler automatically with sufficient anthracite for a whole day's burning.

pipes will feed the third block of 100 flats which will complete the first stage. Work on these has already begun. By centralising the boiler installations in this way, coal delivery, handling and storage are simplified and maintenance made considerably easier.

This modern heating and hot water system makes a minimum demand on the time of the caretaker and his assistant who are responsible for its operation. A few minutes each day has been sufficient to keep the boilers running at peak efficiency without further supervision and it is not anticipated that boiler operation will be appreciably more arduous even when all 400 flats are connected.

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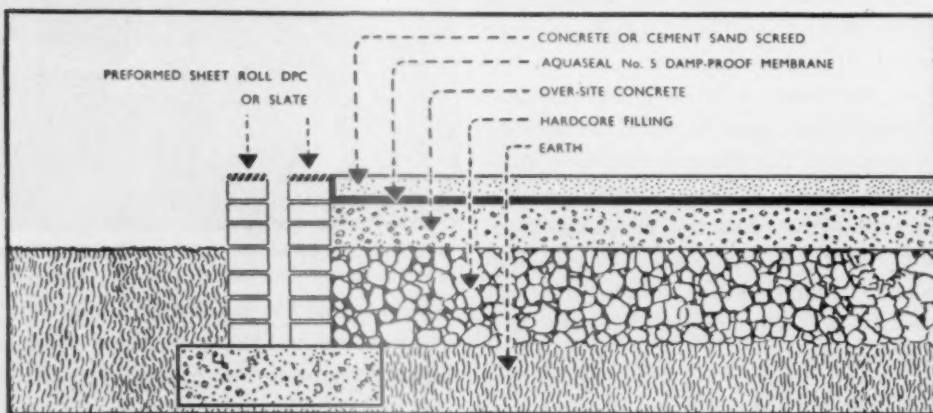
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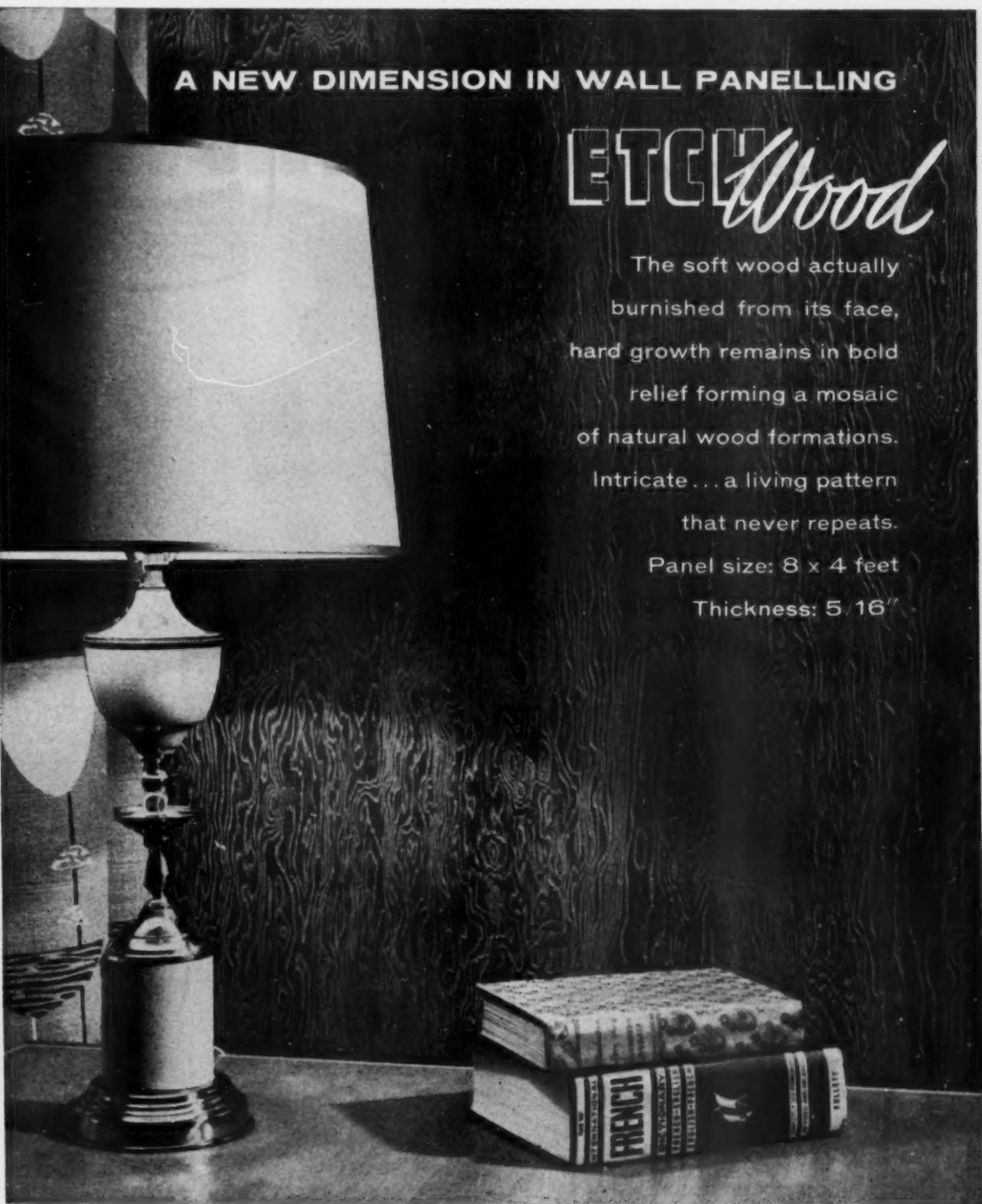
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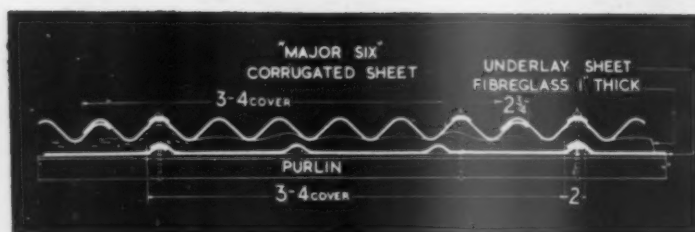
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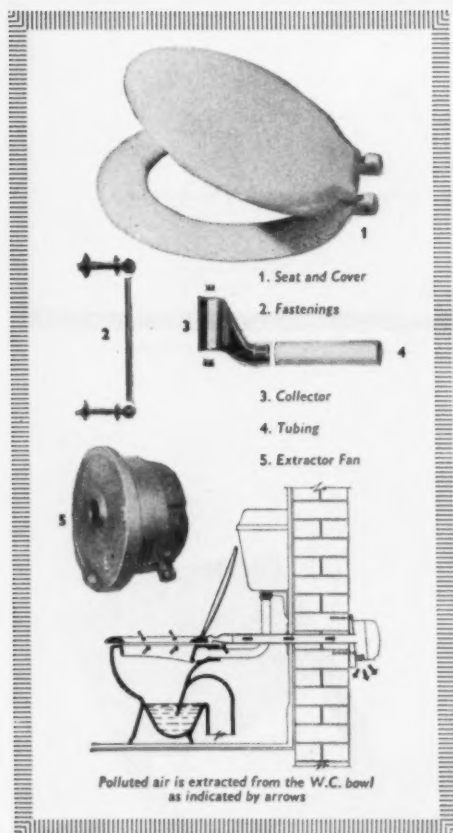
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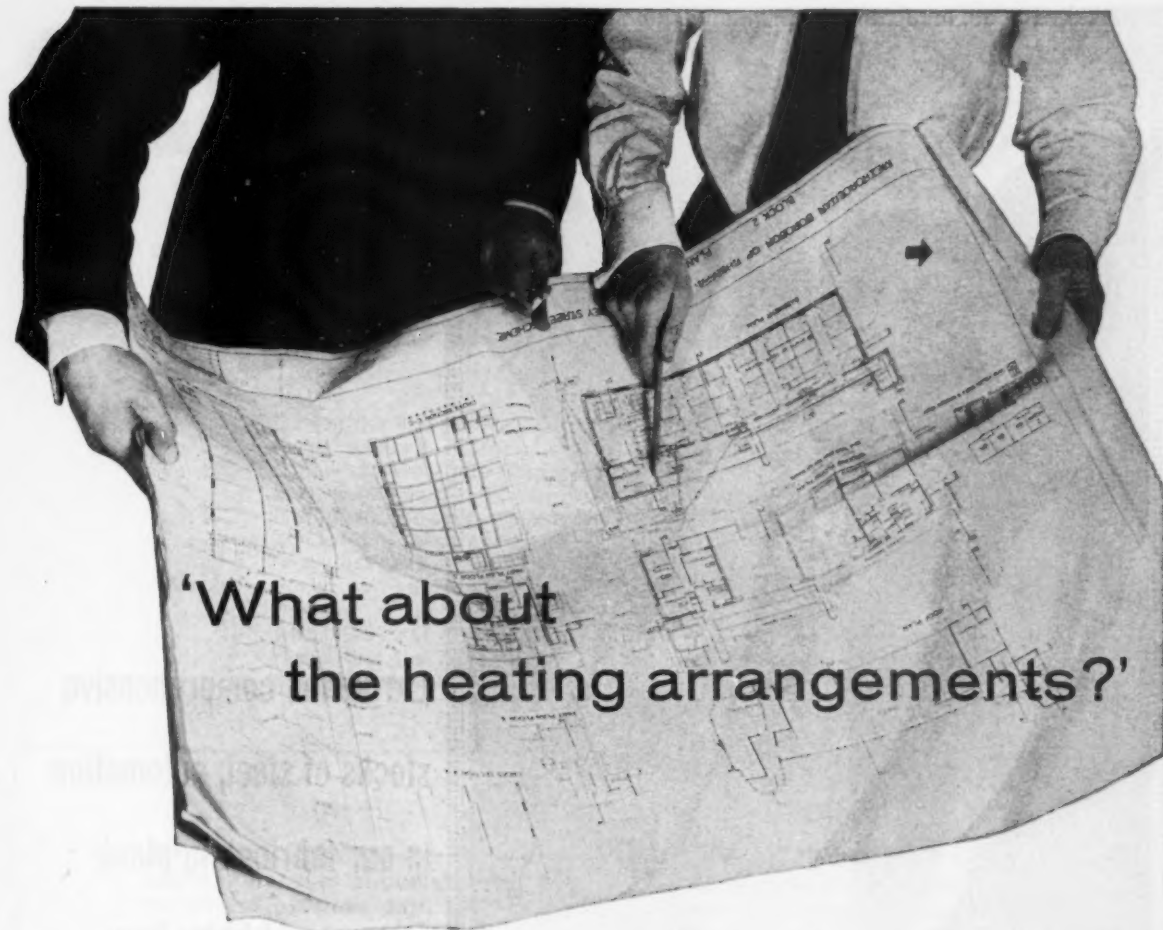
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# 255

EXPERT OPINIONS ON

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We list these six points below—not in any particular order of importance, because some of them overlap and it was hard to say where one point ended and another began . . . but do you agree, Sir, that these points are, indeed, "What matters most about paint"?

May we ask you to add in the blank space we have left any point which you think matters just as much and ought to have a number in its own right.

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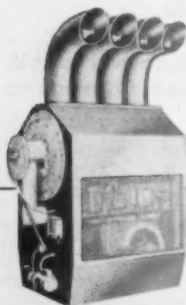
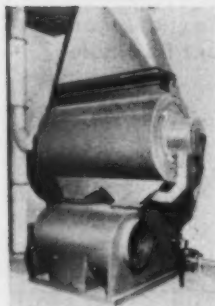


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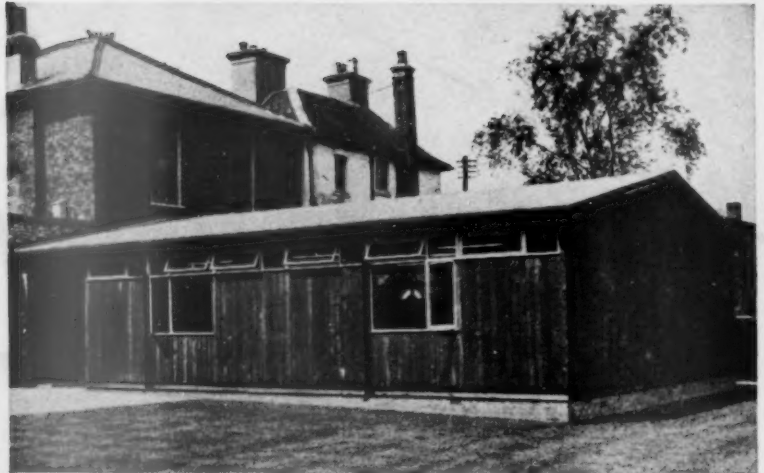
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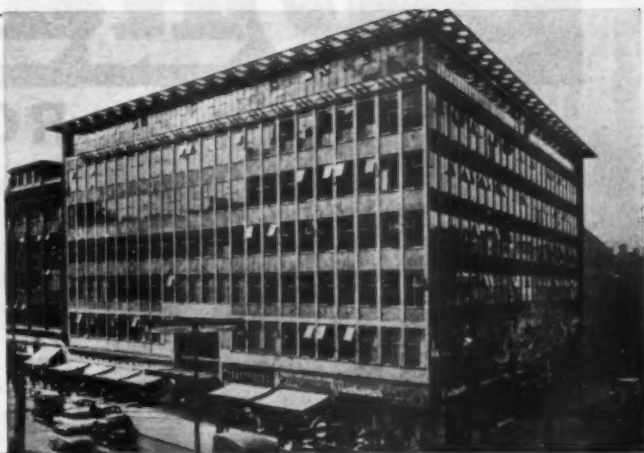
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A



B



C



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E



F

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B Atlas Wafer fittings at Thorn House—Architect Basil Spence & Partners

C Royal Observatory, Herstmonceux—Architect Brian O'Rourke FRIBA

D Son et Lumière at HMS Victory, Portsmouth

E Passenger reception for Lincolnshire Road Car Co. Ltd.—Architect F. G. Frizzell ARIBA, AMPTI, AILA

F Croydon Parish Church with Son et Lumière in Aurama.

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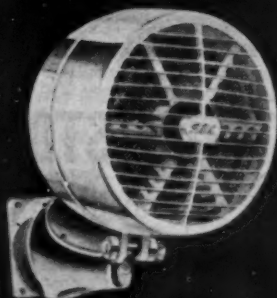
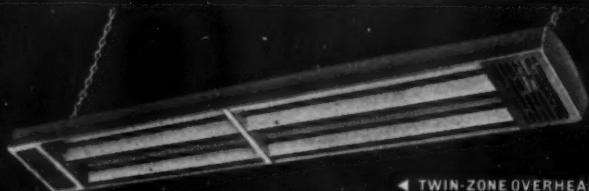
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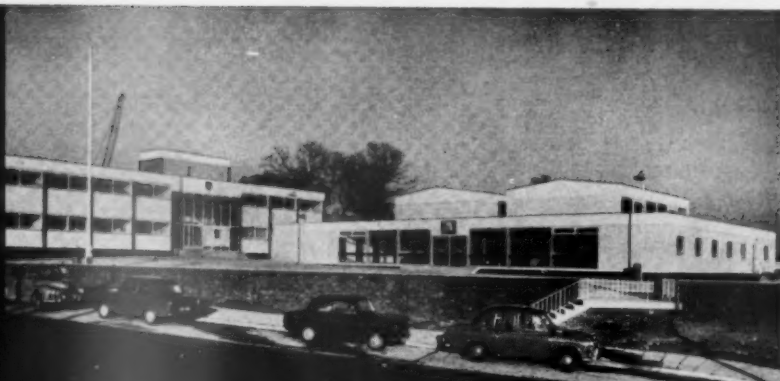
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Multiple Shops, Stevenage New Town.  
Architect: L. G. Vincent, A.R.I.B.A., Chief Architect, Stevenage Development Corporation.

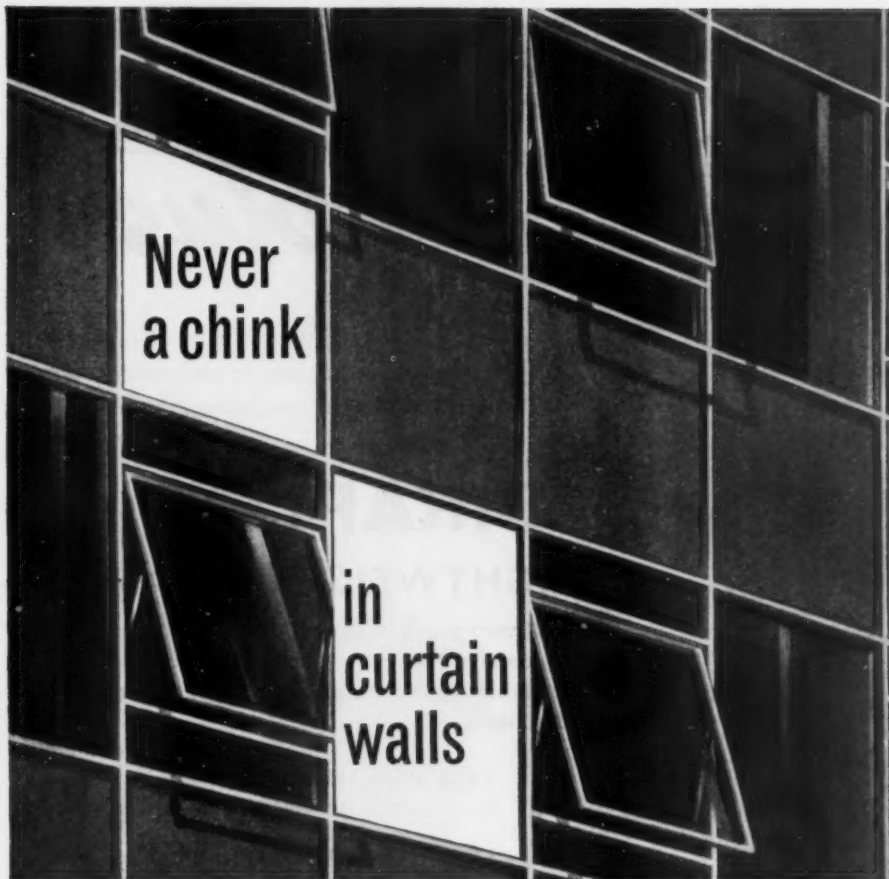


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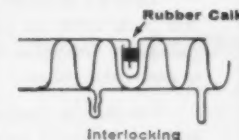
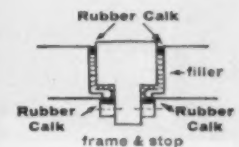
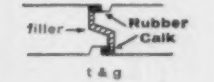
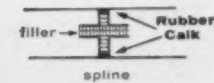
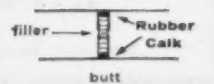
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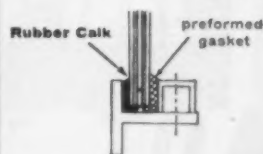
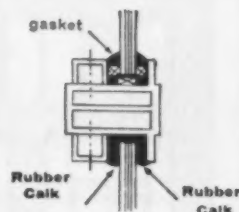
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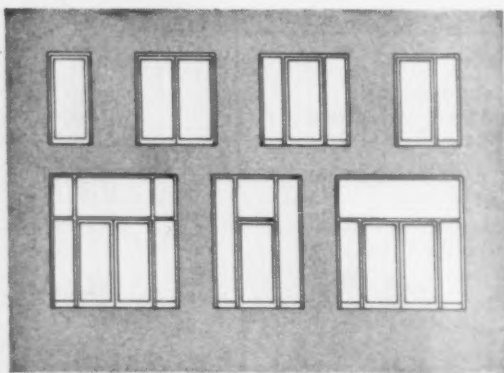
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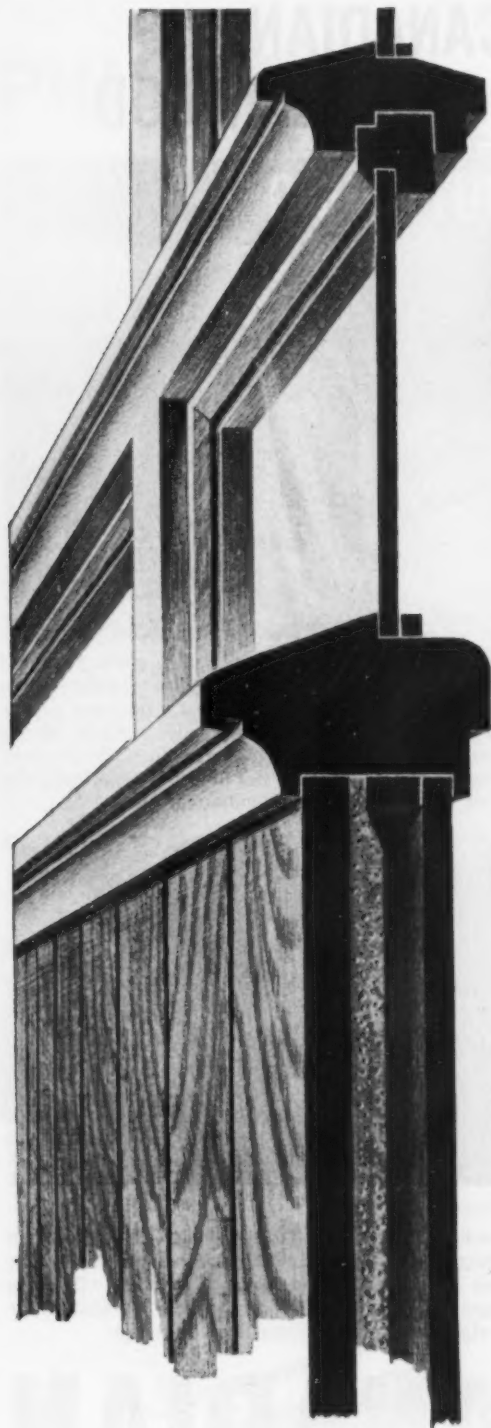
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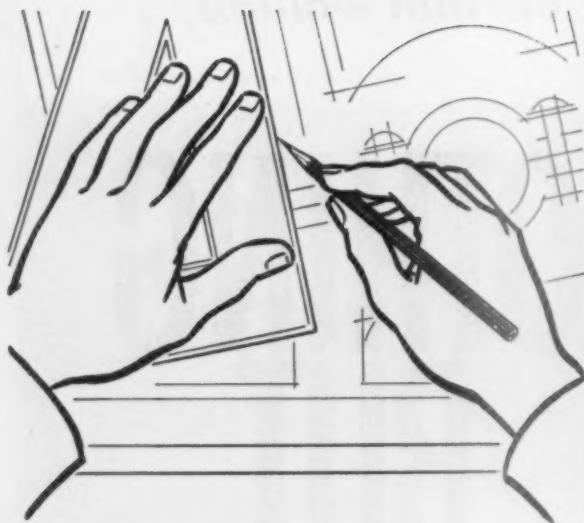
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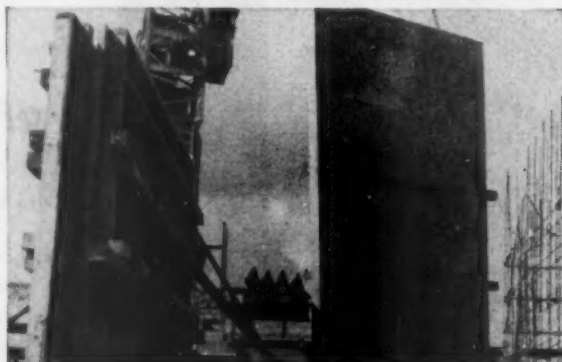
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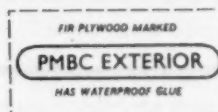


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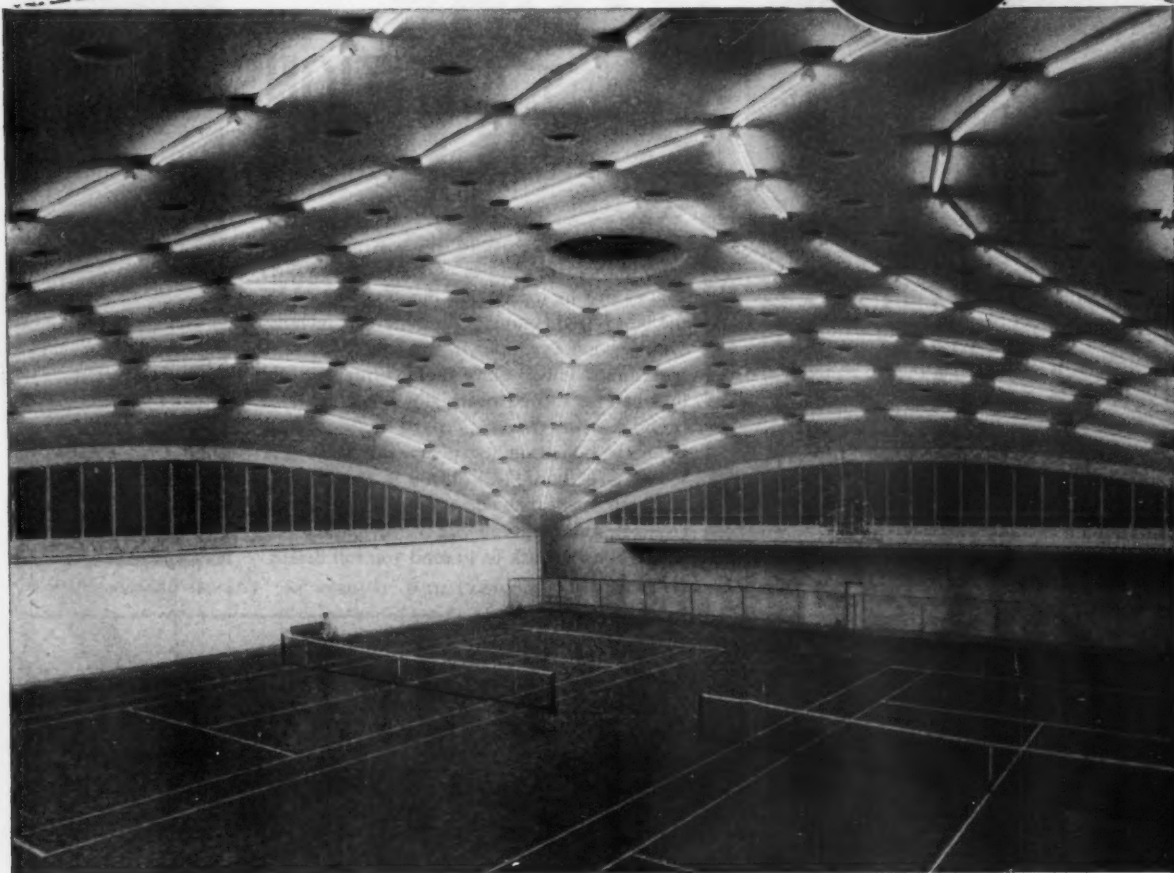
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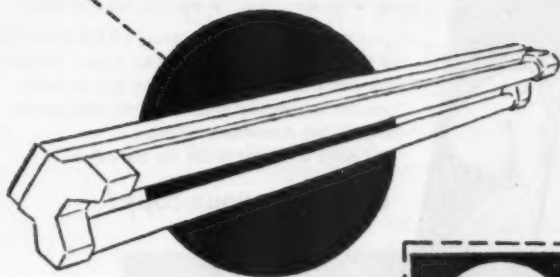


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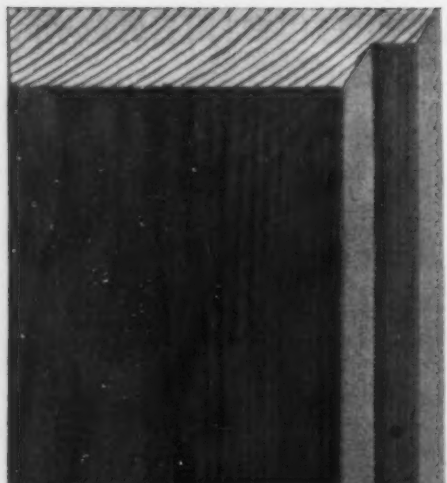
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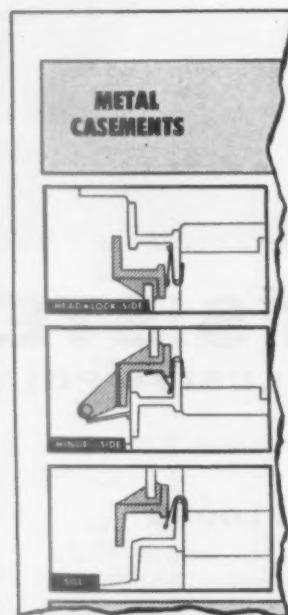


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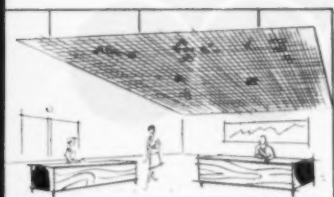
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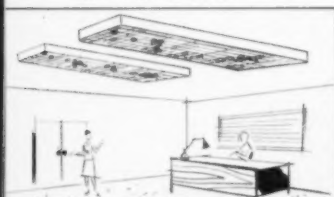
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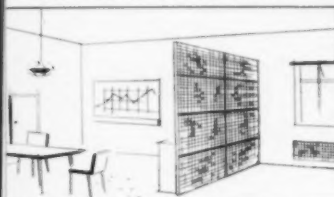
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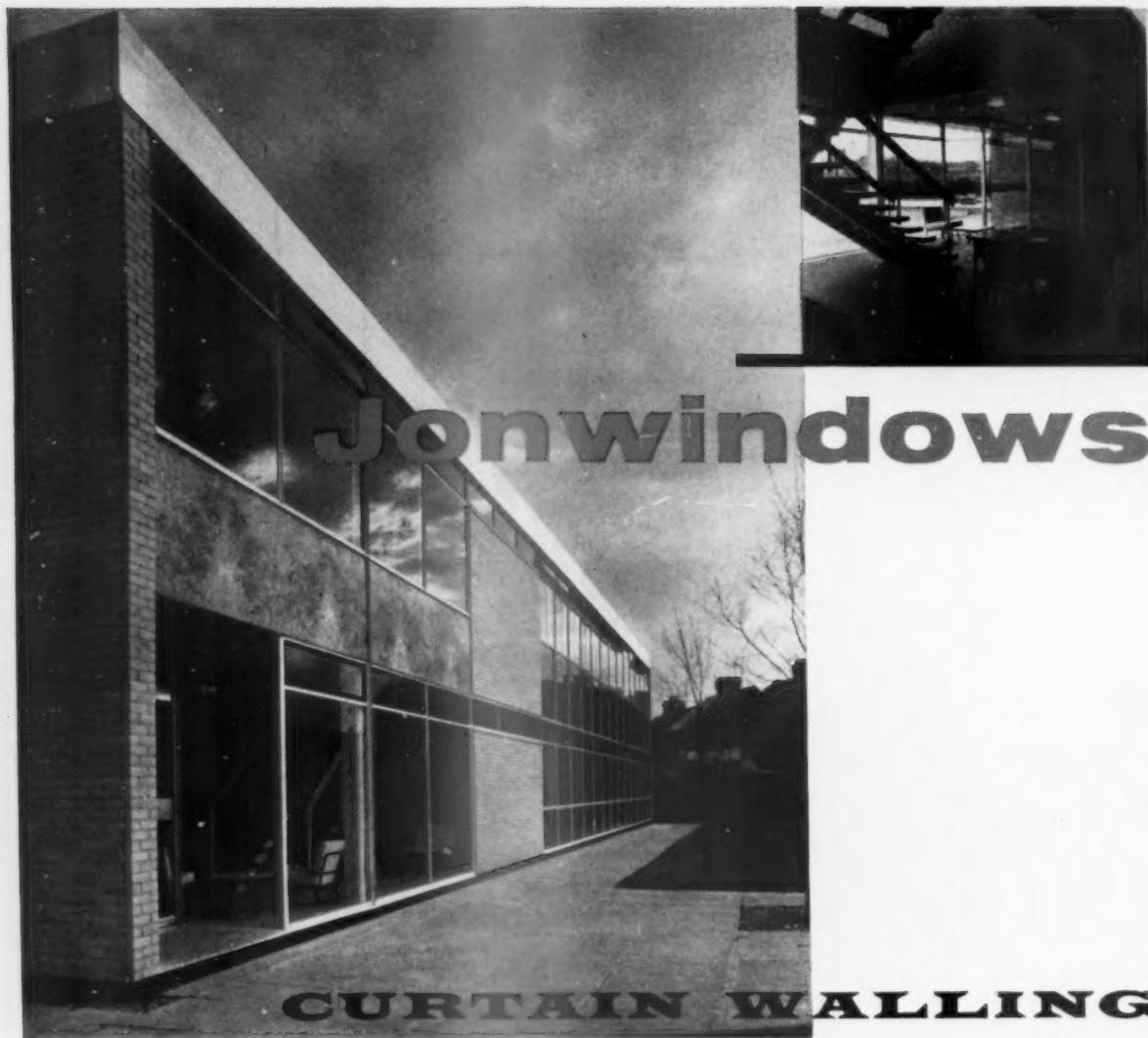


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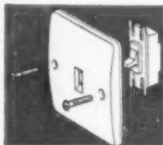
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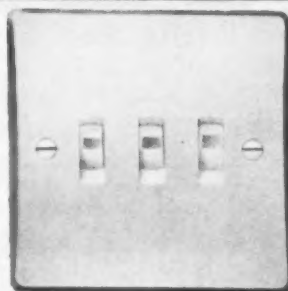
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## views of two presidents

SIR William Holford, President of the RIBA, and Rowland Nicholas, President of the TPI, both gave their inaugural addresses\* last week.

As was perhaps to be expected, both spoke at some length on the role of the architect in major redevelopment schemes. Both were careful not to exacerbate present inter-professional controversies, and both were obviously trying to reach some kind of *modus vivendi* which would enable all professions to contribute their different skills to urban renewal.

Sir William said that he had always found that collaboration between architect and engineer on common problems led to the disappearance of friction, and suggested that there should be greater willingness to play a subordinate role where the major executive responsibility belonged to a colleague in another profession.

Architects were used to calling in engineering consultants for building work and in the same way he felt that engineers in charge of major constructional projects, such as roads or power stations, should automatically call in architects to advise on the human and landscape aspects of the work.

In central area problems of course, there are more than two professions involved. A few weeks ago† we put the case for architects as the leaders of urban renewal teams, in the belief that they are more likely, by training and aptitude, to possess those qualities of vision and imagination needed to seize the fleeting opportunities for resurrecting our city centres, and this has been reinforced by the RIBA today in its appeal to local authorities to appoint chief architects to have overall responsibility for building work.

Mr. Nicholas, who besides being President of the TPI, is the City Engineer and Planning Officer of Manchester, seems to look rather to the planner to lead the central area team. He recognizes the need for special skill, over and above that normally possessed by planners, and suggests that 'consideration might be given to the establishment by the [Town Planning] Institute of a Diploma in civic design which can be taken by those of us who expect to work in this field'.

Because of the great shortage of experienced men in this field there is much to be said for this. But in view of the fact that it takes five years in an architectural school to achieve the present standard of architectural design, could a one-year, or even a two-year, post-graduate course, turn out competent urban designers unless the course were limited to qualified architects, or unless the other professions engaged in planning had in the meantime given increased importance to design in their undergraduate training?

### **The president's address**

I was about to write a scathing comment on the poor attendance at the RIBA for Sir William Holford's inaugural address. 'Where were the young men?' I was going to write. 'Here we have one of the world's most famous town planners, but because he happens to have an English name and to talk plain sense young architects and students do not feel the call to attend.' As I say, I was about to write this when someone asked me whether I used to go to listen to the PRIBA's address when I was a student. I had to admit that I never did, but, on the other hand, I was so lazy, or perhaps busy, that I never went to hear the Okay boys either.

Sir William is one of our very best architectural speakers. His manner is agreeable and his air youthful. He admitted afterwards that on this occasion he was still feeling the effects of his recent accident, but he did not show it while reading his admirable and statesmanlike paper. He neatly wove together a general survey of the problems currently confronting the profession with a good selection of his own views.

His paper may be read in full on pp. 585-7.

Sir Alan Lascelles proposed the vote of thanks and Sir Julian Huxley seconded it; men of high distinction to thank the president for a distinguished address.

At the end of the proceedings Sir William unveiled Sir Jacob Epstein's bust of Sir Basil Spence which was illustrated on this page last week. The RIBA is very lucky indeed to have acquired in one a great work of art and a lively reminder of a past-president 'vigorous, warm-hearted, riding at the head of the column, and ready any day to break a lance in the tilt yard for the sake of the colours that he and all architects carry'. The words are Sir William's and are taken from his paper.

Sir Basil, in his particularly warm-hearted way, described how the bust came to be modelled and his conversations during sittings for the great sculptor.

### **The RIBA ball**

Nearly a thousand people attended the Ball at the RIBA last week. It was the first entertainment to be arranged by the recently-formed social committee, which has thus got away to a very good start. The arrangements seemed to me to be admirable and I have yet to meet anyone who did not enjoy the evening.

The building always looks well when crowded with people in evening dress. On this occasion it looked even better than usual because of the special lighting. Two bands played throughout the evening, one in the Henry Florence Hall—decorated to remind us that we were architects with some floodlit plaster Corinthian columns—and the other in a neatly contrived and deliciously crowded 'boite' in the Henry Jarvis foyer where a special floor had been laid.

Sustained efforts by the lively jazz band, the vast crowd, and the lack of ventilation made this feature a tremendous success. Films were shown in the hall next door, but whether the sound track could be heard I do not know. If it could it is a tribute to the sound insulating properties of that sliding partition. The Charles Barry exhibition was moved to the library for the occasion and there were bars all over the place. It was good to see so many young people there. The girls were, as usual, second to none.

The ABS Ball long ago lost its domestic flavour, and the cost of tickets puts it well out of the reach of the younger architect. The RIBA entertainments committee is to be congratulated, therefore, on providing an architects' own evening at very reasonable cost. More please.

### **Bartlett Boy playwright**

*The Dice*, a play by Mr. Forbes Bramble, a student at the Bartlett School of Architecture, University College, was one mark behind the prize-winning entry at this year's Welwyn Drama Festival. The play shared the opening night of

the London University Drama Society's season last week.

I quote from *The Times*—'In *The Dice*, Mr. Bramble investigates questions of faith and personal responsibility with intelligence and tactful irony. Three political prisoners in an unnamed totalitarian state are so diverse in character and outlook that they can maintain an uneasy peace only by referring all points of dispute to a pair of dice. Before long, they have endowed their instruments with divine powers of decision and patronage; disillusionment comes when the dice apparently refuse to accept responsibility for their own tragic action . . . If it does not say all that can be said about its theme (and of course no single play could so so) it says all that its form and characters imply, and makes its statement in effectively theatrical terms.'

I wonder whether Professor Llewelyn Davies realizes that he may have a second Sir John Vanbrugh in his school.

### **The AA 10 years ago**

My remarks last week about the AA school 10 years ago have stirred up a hornets' nest. This was the last thing they were intended to do. I am very sorry indeed that they should have been understood to have cast a slur either on Mr. Robert Furneaux Jordan, who was Mr. Patrick's predecessor, or upon the ability of the students in the school at that time. Such things were very far from my mind.

### **More news from Bristol**

Sir Gordon Russell visited Bristol last week to lecture at the University. He also opened an exhibition of architectural drawings and models arranged by the city architect's department at the Bristol Building Centre. On both occasions he mentioned the threat to Bristol's future from the lack of a comprehensive development plan.

Of the Wine Street site, which I mentioned last week, Sir Gordon said, 'Bristol has a wonderful site. If you allow Wine Street to be developed by some speculator, or if you allow Ashton Court, that splendid house, simply to fall down, you are not citizens who should be allowed to live here. But you will have to do a lot of prodding if you are going to stop it.'

Later he spoke of Queen Square—'Sometimes the planning is by one department and the building by others. That sort of thing, I am forced to believe, led to that terrible crime you have committed in Bristol of driving a road diagonally across Queen Square, one of the finest things in Europe. You have ruined it; you might just as well have blown it up. It must have been done by people who did not know what they were doing.'

Sir Gordon ended with a plea for better information for the public about plans for the development of their city.

This plea for more information was echoed in leaders in the *Evening Post* and the *Western Daily Press*. The *Evening Post* wants a permanent exhibition of drawings and models showing proposed development in the city. You may remember my description of the disused church in Amsterdam which has been converted to this very purpose. The citizens of Amsterdam can see what is happening in their city and take a pride in it. The *Western Daily Press*, while commending the temporary exhibition, suggests that the burgesses of Bristol are too apathetic to go and look at it.

The Bristol Anti-Uglies timed their campaign for a comprehensive plan to begin with Sir Gordon Russell's visit. They are calling for the 'worthy rebuilding' of Wine Street. On the day of the visit they picketed the Bristol Building Centre and the Wine Street car park handing out leaflets.

I have just heard that the Bristol planning and public works committee have announced a scheme for the Wine Street-Castle Street area prepared by the city engineer and planning officer. I have not seen this myself, but am told that it leaves the way open for some comprehensive development, although not changing the present position at Wine Street very much. But more about this next week.

**ABNER**

## The AA 10 years ago

Sir,—Why does a compliment to Michael Patrick have to be coupled with an unwarranted slur on the work of his predecessor? (Abner, October 26). I am sure that Mr. Patrick, then a member of the staff, would be the last to say that academic standards were 'dangerously low' before he became principal. The work of students seen at the Architectural Association's annual exhibitions during Mr. Jordan's appointment, and their subsequent work now built or building, refutes this. 'Restlessness' there was: lively disagreements and resultant clashes were inevitable between groups in the enthusiastic atmosphere engendered by the prospects of post-war rebuilding.

Yours, etc.,  
DAVID F. GRAY, Ariba, AADipl.

Sir,—It is a pity that Abner's tribute to the AA's retiring principal should have contained a statement which is manifestly untrue. He suggests that Michael Patrick had taken over the school 'at a time when restlessness of one form or another was the keynote among both staff and students and academic standards were dangerously low'. This could be taken as an unnecessary and unwarranted attack on his predecessor, Robert Furneaux Jordan, and for that matter on the staff of which Mr. Patrick was himself a member.

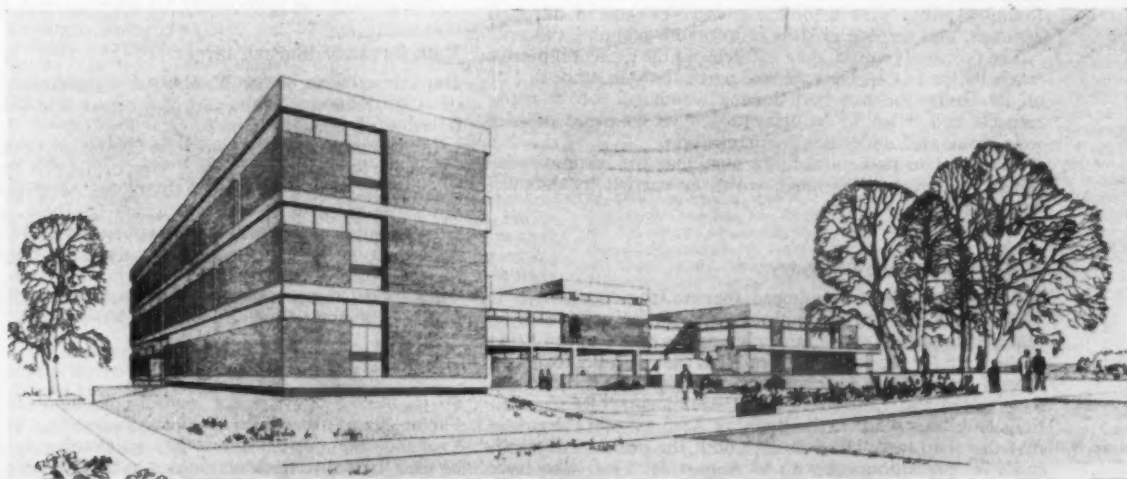
As students of the AA at the time in question we should like to correct the false impression which your readers may have gained from Abner's irresponsible remarks. The unrest of the students to which he refers followed the sudden and unexpected resignation of Mr. Jordan who had their full confidence and support. And as for the suggestion that academic standards were dangerously low, might they not have been, for some people, dangerously high?

We have no wish to deprive Mr. Patrick of his hard-earned bouquet but feel that it would have been more gracious had Abner tempered his enthusiasm with a greater regard for the truth.

Yours, etc.,

M. J. S. Andrews, David Bottoms, Miles Broughton, Ronald H. Bull, John Burkett, P. D. Blair, R. F. Bull, David Brain, N. S. Bakhle, Peter Clapham, Pat Crooke, Brian Coventry, Michael Cain, Derek C. Daniels, Alan Diprose, T. de P. Davies, Andrew Derbyshire, Colin Boatman, Michael Brawne, Alan Emmerson, David Embling, G. F. Fowler, H. G. Foster, John Fletcher, Derek Flower, G. A. Goulty, R. Grainger, John Gentle, Roderick Ham, Grahame Herbert, Marjorie Hichisson, Philip Hicks, Richard Holmes, R. Houghton, Brian Housden, Patrick Hodgkinson, Anna Hodgkinson, D. T. Johnston, Gerd Kaufmann, Julian Keable, Ray Leigh, Terry Knight, Stephen Macfarlane, M. R. N. MacGillycuddy, Peter Manning, Robert Maguire, John Noble, Peter Ogden, John Ollis, Duncan Pearse, Richard

Perspective of the winning design in the Wokingham Town Hall Competition by John G. Fryman. His design is illustrated on pages 582 and 583



Powell, J. R. Plincke, Colin A. K. Pain, Francis Pym, Patrick Quirke, Donald C. Roe, G. Peter Ryland, Stephen Rosenberg, Geoffrey Salmon, A. A. Stuart Sharp, Gordon Sheere, Harley Sherlock, Geoffrey Simmons, John Smith, Lloyd A. Smith, Ralph Smorczewski, R. H. R. Spencer, Geoffrey Spyer, Julian St. Leger, Christopher Stevens, Brian Smith, J. A. Tolson, G. A. Turnbull, Norman Whicheloe, D. G. Whiteley, C. R. Whittaker, R. E. Wilkinson, Michael Willis, Peter Womersley.

Abner's comment on opposite page

## Sent anonymously

Sir,—A number of architects have received anonymously, in an unstamped envelope, two extracts from publications. One is from the *Architect and Building News* dated June 8, 1960, concerning the announcement by Messrs. A. H. Anderson Ltd. that they had appointed a chief architect to the company. The other is a copy of an advertisement appearing in the *Sunday Observer* dated July 10, 1960, advertising staff appointments vacant in the architects' department of George Wimpey & Co. Ltd.

The undersigned wish to disclaim, on behalf of their respective companies, any knowledge of why these extracts have been circulated and by whom, and further to express their concern that senior members of the architectural profession should be inconvenienced in this manner.

Yours, etc.,  
A. H. ANDERSON.  
for A. H. Anderson Ltd.  
E. V. COLLINS.  
for Geo. Wimpey & Co. Ltd.

## BASA at Balliol

Sir,—A phrase in your report of the BASA conference (Sept. 28) understandably caught the ear of a journalist—'freedom-peddling Paul Ritter . . . had a field day'.

However, as snappy as it may have sounded, as tempting as it must have seemed, I must protest. You see, the loving care, with which you kindly printed my proposals at that conference in full, should not be withheld from the phrase 'freedom peddling', which I described in very great detail.

It is Wilhelm Reich who coined the phrase to distinguish those who irresponsibly thunder freedom to those not capable of it, from those who responsibly describe facts for adoption, when, where and with whom it was opportune.

The latter, I stressed, was my purpose and it was this which was the key to the students' expressed attitude that my ideas could be gradually incorporated into the educational process, which your writer seems to find difficult to believe.

Yours, etc.,  
PAUL RITTER.



### The Greater London proposals: RIBA's view

Serious concern about the effect on planning, urban renewal and building control under the Royal Commission's proposals for the Greater London area has been expressed by the RIBA. The Council regards the situation as so disturbing that it has decided to set up a working party to present a report at the Council's next meeting on whatever consultation with other professional bodies, action and publicity are thought to be necessary to influence the Government on any legislation which may follow the Commission's report.

Commenting on this decision at the Council's press conference last week, the president, Sir William Holford, said the RIBA wanted to make its views known as widely and as effectively as possible, and any proposals to this end would be carefully considered. One step that would certainly be taken would be to lobby MP's on the issues about which they felt most strongly.

He said the RIBA accepted that we must have a Greater London Council, but the Institute had always assumed that building, planning and urban renewal projects now handled by the LCC would be handled even more effectively by a Greater London authority. What disturbed them so much about the report was that there didn't seem to be much provision on how these policies would actually be carried out, and that it was proposed to administer these functions in ways that were not very practical.

It seemed, for instance, that one body would design the schools and appoint the teachers and another body would build and maintain the schools—and sack the teachers. 'There is this complete division of functions which we as architects think is entirely the wrong way to tackle the problem,' he declared. 'If you are going to have a plan and have no powers of planning control, and don't see the projects put up for planning permission, it is obviously very difficult to see that what you dream up on the models and plans is actually carried out.'

The proposals on building control seemed to leave the confusion far worse than it was at present. They had decided to set up a working party as a matter of urgency, because they felt the proposals could quickly be turned into a White Paper and accepted by the Government. The first thing they were going to do was to set out the facts and reasons for their disquiet, and then they were going to decide what other bodies, individuals or academic research institutions they should meet to discuss common points of view. 'It is very difficult to know how a professional institution can bring further pressure to bear,' he commented.

Sir William went on to say that the report suggested that the ideal size for a London borough should be from 100,000 to 250,000. The RIBA's representatives who gave evidence before the Commission had suggested 500,000 as the ideal figure. One would assume that each borough should have an architect's department and proper supervision of building work.

'We are a little fearful that the scheme won't work,' he said, 'and that we shall find ourselves back with always fuddling along with a building surveyor and a borough engineer, and turning existing officers into planning officers.'

The proposals would, they felt, remove the present initiative taken by the LCC in big schemes, particularly in schools. For all its faults, the LCC had done a wonderful job in many respects and it would be disastrous if its go-ahead policies were eliminated under this reorganization.

'We want to make absolutely sure that the recommendations that affect us so much won't be carried by default,' he concluded.

### RIBA new standard of entry

It has already been announced that as from September 1, 1961, applicants for probationership of the RIBA will be required to possess two appropriate passes at Advanced Level of the GCE (or the equivalent) and that the same qualifications should be required as from that date for admission to the Recognized and Listed Schools of Architecture. Representations have been made to the Board of Architectural Education that this may leave some doubt about the position of applicants for probationership up to August 31, 1961, who have



Photographed at the RIBA Ball are Sir Hugh Casson, Sir Basil Spence, and the president, Sir William Holford, with Lady Casson (left) and Lady Holford

only five Ordinary level passes (or the equivalent) and in particular of students who may achieve these passes in the spring and summer of 1961.

In order to clarify the position, the RIBA has decided to bring forward the introduction of the new arrangements for the probationership so that the last applicants who can be admitted with Ordinary level passes (or the equivalent) only will be those who gained such passes *before* the spring and summer examinations of 1961. They have also decided, in view of the ruling issued to the Recognized and Listed Schools and of the limited facilities for training otherwise available, that students should be advised in their own interests *not* to register as probationers from now onwards unless they have two appropriate 'A' level passes (or the equivalent).

### Time-saving construction technique

The construction of a new department store in Argyle Street, Glasgow, is expected to take two months less than usual through the employment of a new construction technique. This involves building from the roof downwards and the ground floor upwards simultaneously. It is also claimed that the method economizes on manpower.

An official of the Leslie organization, which developed the system, said work on the four-storey department store had probably gone ahead faster than on any other building erected in Glasgow. Since work began six months ago, they had gone from minus 17ft to plus 80ft, which he described as 'a fantastic achievement, in view of the cramped nature of the site'.

The store is due to be ready for opening on April 1, 1961.

### Rain threatens housing target

Despite setbacks in the number of completions, the target of 300,000 houses by the end of the year is still expected to be achieved, weather permitting.

In September 26,242 houses were completed, compared with 23,920 in September last year. This brings the total for the first nine months of the year up to 218,491. Much now depends upon the weather. If the rain which has held up building work this year goes on falling, the outstanding 80,000 houses needed to be built in the final quarter if the target is to be reached will not be completed.

Estimated completions for local authorities this year are 130-135,000 and for private builders 160-170,000.

### Professional announcement

F. R. Bullen & Partners, consulting engineers, of Dean Farrar Street, Westminster, opened an office at 11 Royal Exchange Square, Glasgow, C.1, on October 1, and would be glad to receive trade catalogues at that address.



*Continued from page 580*

Secondly, there is the straight administrative advantage of centralizing and co-ordinating a building programme within one department headed by a qualified architect. (The value of this might seem self-evident, yet it is still not uncommon to find buildings, not only under the control of several separate committees but also erected and maintained by the staff of two or three separate departments.) Authorities have found it a help to have immediately at hand an architect to advise all committees on all building projects, thus often cutting out a previous waste of funds on abortive schemes.

9. Co-ordination under a chief architect leads also to a necessary continuity and to the proper preparation and maintenance of records of performance. This officer has the salutary experience of living with his buildings over the years and profiting from the experience both as to design and construction and an increasingly accurate interpretation of committees' aims.

\* \* \*

10. Again, it is the general experience that to these economies in administration can be added those which stem from the exercise of professional skill. In March 1958, the Minister of Education reminded the House of the now familiar fact that radical innovations in design and strict control of expenditure in the building of post-war schools had, in effect, saved some £200 million of public money. There is every reason to think that the same ingenuity and unremitting application can and does conduce to lowering the cost of other building types. The profession has in recent years embarked on a close study of cost control, and savings through increased efficiency are already being achieved for the client in the form of reduced costs, and higher standards of planning and finishes.

11. All this is not to say that councillors care only about costs. Most authorities are not only concerned in maintaining economy but also in providing the functionally efficient buildings and the agreeable environment that is uniquely the architect's province. Indeed, it is the aesthetic element in building, an eye for line, form and proportion, an instinctive judgment in the visual arts, that more often than not attracts the architect into his profession in the first place. Tributes to the excellence of Britain's post-war school building in the face of difficulties are perhaps too familiar to need repetition. It is sufficient to say that the country's new schools are now generally recognized as the finest in Europe (possibly, according to some critics, in the world), and that the Government have recently acknowledged the fact by financing a British schools exhibit at the Milan Triennale Exhibition.

12. Elsewhere, results have depended very much upon the degree of authority and scope for imagination according to the architect's department. For instance, the eminent American critic, Lewis Mumford, was able to write that the LCC Lansbury Scheme 'has turned out a splendid example of urban building, the best I have found in England, and perhaps the best thing that has yet been done for the lower income groups anywhere . . . While public housing is catching its breath in America and becoming conscious, I trust, of its sins, we might profitably consider this masterly effort as a guide to our own thinking'.

\* \* \*

13. Similar reputations obtain in those cases where the chief architect's department has had unique opportunities to start virtually from scratch, as for instance in Coventry and the New Towns. In the county boroughs, however, it cannot be said that this *uniformly* high reputation occurs; and it is hard to resist the conclusion that this unevenness is linked with the manner in which the building work is handled. It is clear that Britain's reputation internationally in the housing field is as high as it is in other fields, when an architect has been allowed to exercise his skill with full responsibility. If there has been housing work of an indifferent standard it is probably because no architect was engaged to work on it. To quote Sir Keith Joseph, Parliamentary Secretary, Ministry of Housing and Local Government, in the House on November 20, 1959: 'It is true that many housing schemes—some public, many private—are built without thought to landscape or site, and in many cases, sadly, without even the benefit of an architect's advice. What can be done about them?'

14. Finally, among the factors which evidently weigh with authorities in the establishment of independent departments, is that of human relations, to be sensed perhaps more than precisely measured. It is only reasonable to expect that where a private architect is engaged to deal with overload he will interpret more accurately the council's wishes if he works with a chief officer who is a professional colleague disposed to talk the

same language. Similarly, it is understandable that assistant architects employed by the council should want to look to their immediate chief as one certainly more experienced and at least as skilled as they in the practice of the same professional techniques. Clearly, also, the arrangement cuts out unnecessary animosities.

#### The present position

15. These are some of the reasons which have led so many authorities to create independent departments as the most efficient way of grappling with the heavy responsibilities statutorily laid upon them. If their action seems no more than a logical application of the principle of 'the right tool for the job', it has to be remembered that some other authorities are faced with difficulties—political pressures, existing appointments, personalities, tradition or other legacies of history—which cloud the issue and make it much less easy to be logical. In some cases, nothing will serve but to allow a lapse of time to clear the way for change. This may be unavoidable; yet it must give pause for thought that in, for instance, some ninety non-county boroughs with populations over 40,000 such problems are being shelved temporarily as too difficult, so that meanwhile several million pounds of public money are being expended annually on buildings erected without appropriate professional control.

16. It will be clear, however, that it is the situation in the county boroughs that demands the most immediate and close attention. Thirty-four county boroughs, all with the widest powers and representing a total annual building programme of the order of £100 million for the next few years still have no chief architect. Some of their building work will have been attached long ago to the borough surveyor or engineer; but it is the architect who, by training and disposition, is qualified to design and construct buildings and to hold a just balance between a complex of needs—economic, technical, functional, sociological and artistic. Some city and borough engineers, recognizing that building is not their province, accordingly give wide latitude to the architectural assistants they control, but that they should be responsible at all is at best an administrative makeshift.

17. Anomalies in any organization that have grown up through expansion are seldom easy to correct overnight. Yet time alone cannot be allowed to resolve the problem among the county boroughs. They are altogether too important to the life of the nation and the appearance of the towns in which four out of five of us live.

\* \* \*

The full list of local authorities without chief architects is as follows:

#### County boroughs

*Figures are the populations in thousands*

Barnsley, 75; Barrow in Furness, 64; Blackburn, 106; Bootle, 82; Brighton, 160; Burnley, 81; Bury, 58; Carlisle, 69; Chester, 59; Croydon, 249; Eastbourne, 58; East Ham, 111; Gateshead, 110; Grimsby, 96; Halifax, 95; Hastings, 65; Ipswich, 113; Middlesbrough, 152; Nottingham, 313; Oldham, 118; Preston, 115; Rochdale, 85; Rotherham, 84; St. Helens, 111; Salford, 163; Smethwick, 73; South Shields, 108; Tynemouth, 68; Wakefield, 60; Warrington, 79; West Bromwich, 93; Wigan, 81; Wolverhampton, 148; Yarmouth, 51.

#### Non-county boroughs with populations over 40,000

Acton, 65; Aldershot, 40; Altringham, 41; Ashton-under-Lyne, 51; Bebbington, 51; Beckenham, 75; Bedford, 59; Bexley, 90; Brentford, 57; Bromley, 66; Cambridge, 92; Castleford, 42; Chatham, 51; Chelmsford, 43; \*Cheltenham, 69; Chesterfield, 67; Chingford, 46; Crewe, 51; Crosby, 58; Dagenham, 114; Dartford, 43; Ealing, 183; \*Eccles, 44; Enfield, 109; Epsom and Ewell, 68; \*Erith, 46; Folkestone, 45; Gillingham, 78; Gosport, 65; Gravesend, 47; Guildford, 52; Halesowen, 43; Harrogate, 52; \*Harrow, 214; Hemel Hempstead, 46; Hendon, 151; \*Heston and Isleworth, 105; High Wycombe, 45; Hornsey, 97; Hove, 70; Ilford, 181; Lancaster, 49; Leigh, 47; Leyton, 98; Lowestoft, 44; \*Maidstone, 56; Malden and Combe, 46; Mansfield, 52; Margate, 43; \*Middleton, 53; Mitcham, 65; Newcastle-under-Lyme, 74; Nuneaton, 56; Oldbury, 55; Peterborough, 56; Reigate, 50; Rhondda, 106; Richmond, 42; Rochester, 47; Romford, 114; Rugby, 48; Sale, 48; St. Albans, 48; Scarborough, 43; Scunthorpe, 60; Shrewsbury, 48; Slough, 74; Solihull, 85; Southall, 53; \*Southgate, 71; Stafford, 43; \*Stretford, 62; \*Surbiton, 64; Sutton and Cheam, 79; Sutton Coldfield, 59; Swinton and Pendlebury, 40; Torquay, 51; Tottenham, 118; Twickenham, 104; \*Uxbridge, 63; Wallaseid, 50; Wanstead and Woodford, 61; \*Watford, 73; Wembley, 127; Weston super Mare, 41; Wimbledon, 58; Wood Green, 49; Worthing, 75.

\* In these cases the borough engineer is a registered architect.

#### Metropolitan boroughs

Battersea, 110; Bermondsey, 54; Bethnal Green, 50; Chelsea, 50; Deptford, 70; Finsbury, 35; Greenwich, 89; Hackney, 163; Hammersmith, 110; Hampstead, 96; Islington, 226; Kensington, 166; Lambeth, 224; Poplar, 65; St. Marylebone, 71; St. Pancras, 131; Shoreditch, 43; Southwark, 89; Stepney, 96; Stoke Newington, 50; Wandsworth, 338; Westminster, 97; Woolwich, 145.

(more news overleaf)

# Wokingham town hall competition

The Architect & Building News, 9 November 1960

**First premiated design (£1,000):** John G. Fryman  
**Second premiated design (£500):** Grenfell Baines & Hargreaves  
 in association with David Rock and Robert Smart  
**Third premiated design (£250):** William Ryder  
**Commended designs:** G. Edwin Schoon and Martin J. Wheatley.

**Extract from the report by the Assessor Clifford Culpin:**  
 ONE hundred and five sets of Conditions were issued and 31 entries were received. These covered a considerable range of solutions of the problem and generally the standard of design was high. Many competitors, however, lost sight of the fourth dimension in design—cost—although the Conditions had stressed the need for economy and an answer to a Question had mentioned that a lavish scheme was unlikely to receive the approval of the Ministry of Housing and Local Government. The estimated cost of the most lavish scheme was, in fact, more than four times that of the lowest.

## First premiated design

This scheme provides a simple, direct and economical solution of the problem posed. Good advantage has been taken of the fall in the site to provide car parking accommodation at two levels, both areas reasonably screened from view, and inter-connected. The fine existing trees have been preserved, and form, as it were, the fourth side of the pedestrian square, where they enhance the composition and will be enjoyed by the passer-by.

Entrances to both the office block and assembly halls have been cleverly contrived so that from either the upper or lower level car parks there is ready access. The short-term parking provision is particularly good, as are the admirable arrangements of service entrances.

The office block is very well planned with the less important shallow rooms on the Wellington Street frontage, and the

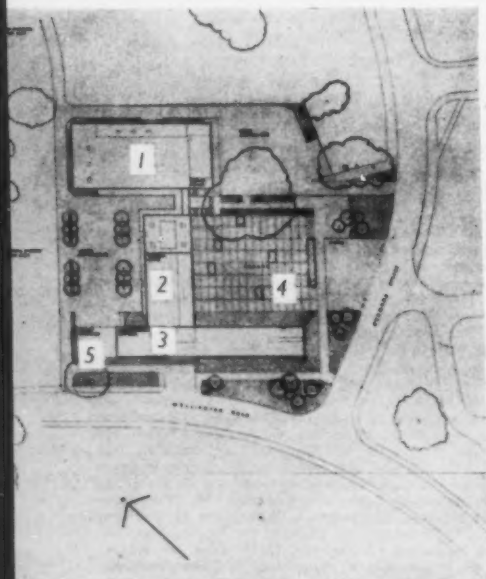
principal rooms looking north-east over the sunlit square. The plans allow for the re-arrangement of partitions at any 4ft interval.

The Council Suite is simple and dignified with well proportioned rooms and the attractive 'members lobby' overlooking the pedestrian square. The Council Chamber gains by its straightforward shape and practical arrangement, and the ceremonial approach to the Hall is well arranged. Below this a covered 'colonnade' provides a direct link between the office block and public halls. Adjoining this at a lower level is the boiler house, well situated in a central position. The officials' covered car-park is located alongside. The caretaker's flat is planned where its occupant can have maximum control of the service entrances and its principal rooms enjoy south sun.

The Public Halls are planned with great economy in contrast to many of the other schemes. The arrangement of large and small halls enables them to be readily used *en suite* and the kitchen arrangements, which have to cope with banquets, are excellent. Cloakrooms and lavatories are well planned to suit the use of the halls together in one letting, or separately. The bar is sensibly placed and the back-stage accommodation is well planned and properly segregated.

For day-time functions the hall has fine windows on the south-west side. There is ready access from the lower (cloakroom) level to either the lower or upper car park or to the pedestrian square.

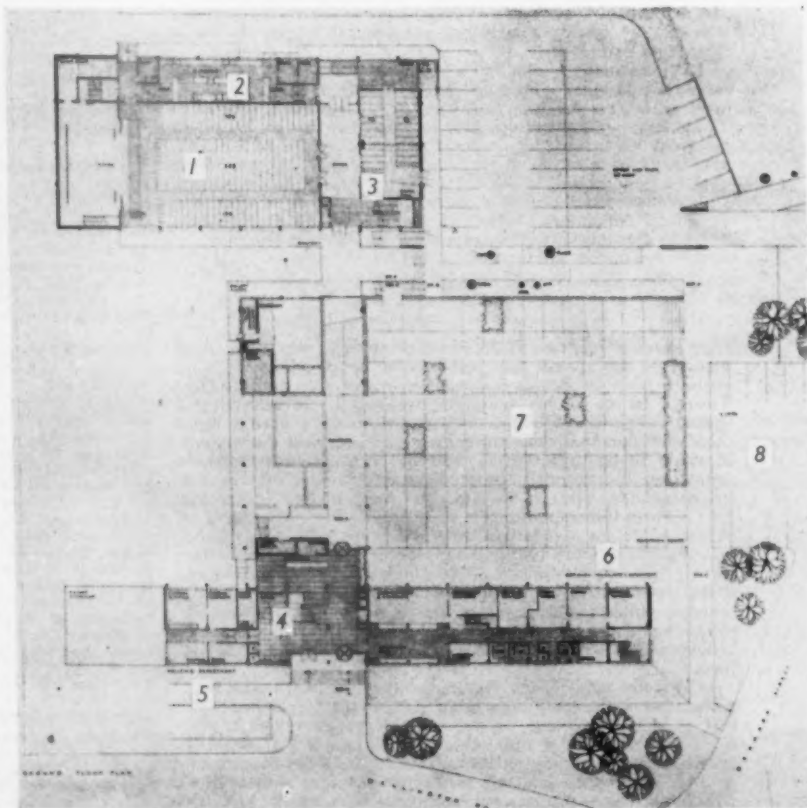
## winning design



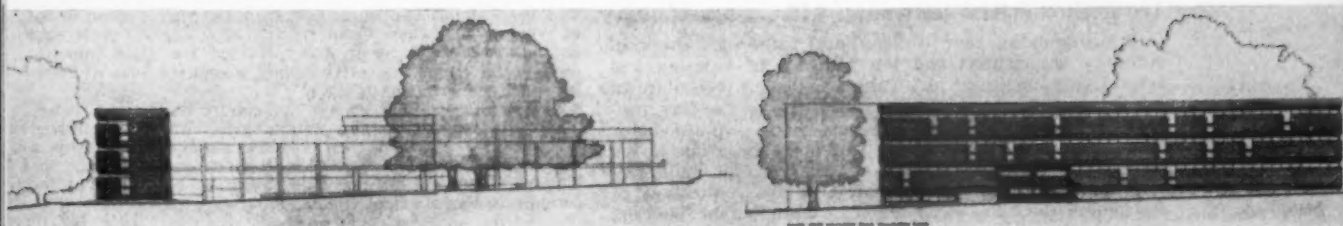
Site plan

Ground floor plan

Site plan key: 1. Public Halls.  
 2. Council Suite, 3. Administrative Offices.  
 4. Square, 5. Future Extension.  
 Ground floor key: 1. Assembly Hall.  
 2. Kitchen, 3. Small Hall, 4. Entrance Hall, 5. Housing Department, 6. Borough Treasurer's Department, 7. Pedestrian Square, 8. Car Park.

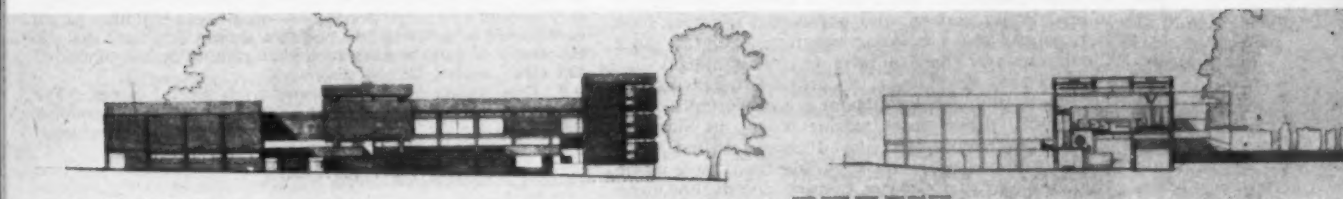


## winning design



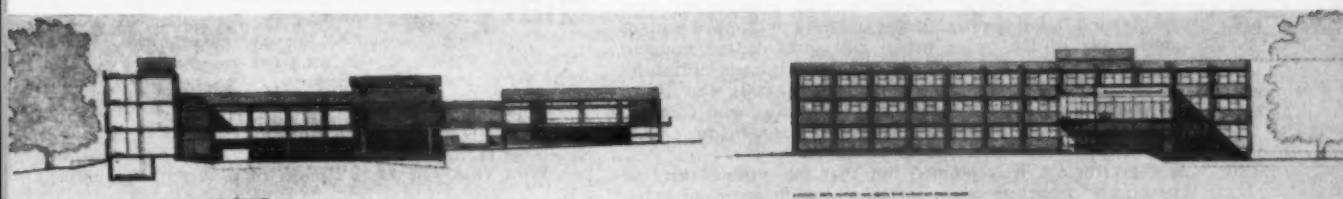
Elevation from Denmark Street

Elevation from Wellington Road



North-west elevation

Council chamber section



Office section

North-east elevation from square

Several minor improvements to the planning are suggested: 1. The 'relief bay' for parking on Denmark Street would be better omitted and a normal lay-by substituted. 2. The parking spaces in the upper car park might be re-arranged to allow cars to draw up alongside the entrance canopy. 3. The retaining wall near the main group of trees should be modified to avoid too drastic cutting of tree-roots. 4 The upper level entrance to the large hall could be opened up somewhat by re-positioning the pay box. The entrance lobby to the minor hall could be also widened and the canopy above extended. 5. A 'procession' over the ceremonial bridge would flow more easily if the staircase were reversed.

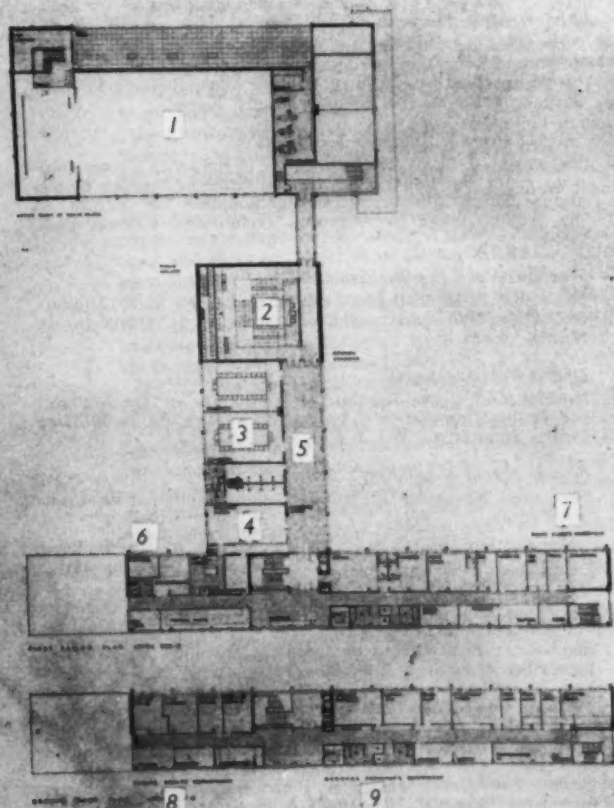
The elevational treatment is virile and expressive of the functions of the various parts of the buildings. The specified external materials—bush-hammered concrete and high-grade blue brindled bricks—are in sympathy with the external architectural character of the buildings and echo their straightforward planning.

The Report shows clearly that very careful thought has been given to the scheme, and that the author has used his imagination to visualize all the various functions of the group of buildings and to plan for them accordingly. I gain the impression that the author of this scheme is a most conscientious architect who will serve the Promoters well.

The estimate of costs is based on slightly optimistic unit rates. It is considered, however, that with the exercise of care in detailing and specifying, at the working drawing stage a price could be obtained which would not exceed by more than ten per cent the competitor's estimate of £211,600.

## First and second floor plans

- First and second floor keys  
 1. Upper Part of Assembly Hall. 2. Public Gallery. 3. Committee Rooms.  
 4. Retiring Room. 5. Members' Lobby.  
 6. Welfare. 7. Town Clerk's Department.  
 8. Public Health Department.  
 9. Borough Surveyor's Department.





### The architect in local government: RIBA statement

In a memorandum sent to many local authorities, the local authority associations and the Minister of Housing and Local Government, the RIBA calls attention to the failure of hundreds of local councils with substantial building programmes to appoint chief architects to be responsible for them. The RIBA declares that this inevitably results in the lowering of standards of design and performance, indifferent siting and landscaping, and prevents the realization of economies through a continuous, co-ordinated building programme under appropriate professional control.

The RIBA describes it as 'an astonishing fact' that, in these days of immense and unparalleled responsibility for building work by local authorities, there are 34 county boroughs in England and Wales with a total population of more than 3½ million people and a building programme of the order of £100 million a year that still have no chief architect.

They include the county towns of Carlisle, Chester, Ipswich and Nottingham (though Nottingham is considering making an appointment), three major seaside resorts in Sussex—Brighton, Eastbourne and Hastings—16 boroughs in Lancashire and Yorkshire, four in the Tyne-Tees area, three in the West Midlands and two Greater London county boroughs—Croydon and East Ham—and Grimsby and Yarmouth. Several of these have populations of over 100,000, and include towns of exceptional architectural merit.

Some 90 non-county boroughs with populations over 40,000 and building programmes totalling millions of pounds and many of the larger urban and rural district councils are in the same position. They include such large authorities as Harrow (pop. 214,000), Hendon (151,000) and Ilford (181,000); and historic towns like Cambridge and Cheltenham. Only five of the 28 metropolitan boroughs have chief architects.

Nevertheless, it is pointed out that the establishment of architects' departments has increased rapidly in recent years. All but one of the 62 administrative counties in England and Wales now have them and during the last 20 years the number of county boroughs with them has risen from 14 to 47.

Full text of the memorandum is as follows:

#### Growth in local authority responsibilities

1. Among many remarkable developments in local government since the turn of the century, none has been more striking than the growth of its building services.

2. With the Housing of the Working Classes Act of 1890 (which gave power to local authorities to clear the slums and build houses) and the Education Act of 1902 (which established local education authorities) there became established two major services which together have transformed the social scene in Britain. Progressive legislation in succeeding years following the devastation of two world wars, has seen these services grow beyond recognition; and to these have since been added all those welfare and amenity services which an increasingly lively social conscience has called into being.

3. Thus any authority of substance may be found building art galleries and abattoirs, children's homes and cleansing depots, concert halls and conveniences, child welfare clinics and crematoria, police stations, passenger shelters, libraries, offices, museums, markets, theatres, swimming baths, and indeed almost anything that touches upon the essential needs of a civilized community.

#### Growth of architects' departments

4. This activity has naturally made essential a great increase both in the use of architects and the establishment of independent architects' departments. Formerly, it has been administratively convenient to attach building work to the engineer/surveyor who was the first technical officer in the field, appointed mostly in the late nineteenth century to provide the basic services essential to health and sanitation. Thus, before 1910 there were not more than half-a-dozen boroughs and county boroughs with an independent architects' department, but the succeeding decades, added 4, 5, 12, 28 and 30 respectively. Among the county boroughs alone, the last twenty years have seen a rise from 14 to 46.

5. County architect appointments tend to be of longer standing. One at least had its origin in the eighteenth century, and the LCC architects' department dates from 1888 (having developed,

with the establishment of the LCC, from the Metropolitan Board of Works). Elsewhere, reconstruction after the two great wars and successive Education Acts provided the main impetus, with the result that now every county, except the Soke of Peterborough, has a county architect.

6. Among even the smallest non-county boroughs a steady increase has also occurred. Some urban and rural district councils have seemed to their councillors too small to justify a separate department; others have continued to experience the kind of intermittent building needs which are best served by the periodical engagement of private architects.

#### Reason for establishment of separate departments

7. A study of the declared reasons which prompted authorities to establish independent departments is instructive. These are as varied and inter-related as they are numerous, but in essence they amount to a single conclusion—that better buildings would be obtained at no extra cost and in a shorter time; and that the experience of neighbouring or similar authorities has supported this view.

8. This conclusion in turn stems from several causes. The first is often the fact of being faced with a building programme clearly outside the training of anyone other than an architect.

*continued on page 591*

## diary

### This week

#### Royal Institution of Chartered Surveyors

November 14, 5.45 p.m. Presidential address by J. D. Trustram Eve, FRICS, FLAS, FAI. At 12 Great George Street, Westminster, S.W.1.

#### Housing Centre Trust

November 15, 6 p.m. 'Urban Transport and the Home': joint meeting arranged through SPUR. At 13 Suffolk Street, S.W.1.

#### BBC Network Three

November 15, 7.30 p.m. Building Matters. The team of Charles Crighton, Ken Pearce, builders, and Edward Mills, architect, will discuss, with the help of William Allen, Building Research Station, 'Planning and Building Against Noise'.

#### Welsh College of Advanced Technology

November 10, 7 p.m. The fifth lecture in the series 'Communications in the Building Team'. 'Communications between Builder and Architect, Sub-contractors and Suppliers', A. E. Lee. At the Welsh College of Advanced Technology, Cathays Park, Cardiff.

#### Woodworm and Dry Rot Centre

November 15-26, 9.30 a.m.—6 p.m. (Saturdays until 12 noon). Exhibition: Woodworm is Everywhere. At 16 Dover Street, N.1.

#### London County Council

November 15, 6 p.m. The third of five lectures on 'The Architect and the Building Contract', by Donald Keating. At the Building Centre, Store Street, W.C.1.

#### Brixton School of Building

Now until November 18. RIBA travelling exhibition on Communications.

November 16, 6.30 p.m. 'Communications in the Building Industry' introduced by R. Baden Hellard, Dip.Arch, ARIBA, FIARb. All meetings at Ferndale Road, S.W.4.

#### Competitions reminders

Balch-Essex Prize offered by the RICS. Amended closing date: November 30 (news, A & BN, June 15).

The Star Competition (redevelopment of Piccadilly Circus). The Evening News will make an announcement about this competition shortly.

Country Landowner's Association (Farm Buildings). Closing date for entries: December 30 (news, A & BN, September 21).



# building for the future

The Architect & Building News, 9 November 1960 585

Inaugural address by the president, Sir William Holford, at the RIBA last week

IN the middle of August, during ten uninterrupted days between Capetown and Madeira, I wrote an outline and a draft of this inaugural address. It had a good deal of abstract thinking in it and some admirable sentiments to which no one—except an art historian out on the prowl—could take exception.

I re-read it a month ago, and it made me feel slightly sick. Allow me first of all to congratulate you, as the audience which has done me the honour of listening to me this evening, on your lucky escape. Then let me add that I have by no means altered my sentiments or thrown away my principles. But I have realized in the interval that any re-statement of principles is much more useful if it rises out of the actualities of a situation. I felt about myself as Walter Lippmann felt about Mr. Nixon. 'My view is,' he wrote in the *New York Herald Tribune*, 'that Mr. Nixon is too noble. He is too reckless with his principles. He ought to come down to the lower level where statesmen have to work.'

I then considered this in relation to structure, which is at the very centre of our mystery. Pure structure can be raised to the level of art, especially when the structural engineer has discrimination enough to avoid giving it an architectural dress. And I thought of Pier Luigi Nervi, who received the Royal Gold Medal, in this hall, earlier in the year. More recently, at Oxford,\* he spoke about the need for actuality, as opposed to designs which are not a means to an end, but an end in themselves. 'Architecture,' he said, 'is body and spirit; and the spirit cannot exist without the body. If the body is well-made, sane and durable, and is controlled and informed by the spirit, then you have architecture.'

He gave us three illustrations outside his definition. One was the base of the Eiffel Tower, which bore some useless members which—in Nervi's words—deformed the structure. Another was the model design for the Opera House at Sydney, which obviously *could* be constructed, but in his view without simplicity or economy of form. And the third was Frank Lloyd Wright's 'Mile High' skyscraper, which he said could not be constructed at all.

I have quoted Nervi, not because I think he covers all sectors of the architectural front, but because in that sector where he is a master he sees more clearly than anyone that every problem of statics which is solved with economy and clarity becomes an additional tool in our hands to increase our sense of fulfilment and to challenge the future.

And how we need constructive achievement and an expanding horizon to set against the contracting future that the H-bomb and the Polaris missile hold out for us as an actual alternative!

This is a further reason for preferring actuality to abstraction. Architecture is not only structure; it is the embodiment, and sometimes the symbol, of hundreds of social programmes, aspirations and histories. And it is in the social field that actuality is most necessary. World population is now growing at the rate of 48 million a year. Many of our clients are bewildered. They want to house more families, teach more undergraduates and children, and provide for more work space, circulation space, mechanical plant and automobiles.

To do this they quite naturally want greater and greater economy or higher and higher profits. Land and buildings are a commodity like everything else. In the rebuilding of our cities we in this Institute are only too painfully aware that 'architecture is not the only factor'. Our legitimate concern has been to prevent it becoming the missing factor. Even in the most speculative enterprises of the 18th century it was never that; but it could much more readily become so today. And yet, behind all the easy (and sometimes justified) criticisms of contemporary work, with its jibes about straight lines and egg-crates and biscuit factories, there is probably a wider interest than there has ever been before in the true architectural product—the structure into which designer and builder have put love as well as care.

—than if we go it alone. Many of them have paid us the courtesy of coming here tonight. If I speak a good deal about architects and architecture I hope they will recognize that I do not use these terms to exclude others.

There is such a thing as an architectural discipline, which can be taught as well as practised; but we think it should exist alongside the scientific approach, technical knowledge, business method, valuation, building organization, social studies, art-historical scholarship, and aesthetic criticism. None of these things is architecture, but our cities are compounded of all these things.

So I have tried to recast my thoughts, and to adjust them to the level where, in Walter Lippmann's terms, professional institutions have to work. For this is the opening of another professional year, the first general meeting of our new session.

Already, since I took office on July 1, some of the perennial problems of architecture and society have come up again, in an acute and practical form, in the domestic and public events of the last four months. Inside the Institute we have been undergoing, for the last four years, a re-appraisal of our functions, our constitution, our educational system, and our external relations. It has not been an easy period for presidents, nor chairmen of committees, nor for officers old or new. For the last two years the Institute has been fortunate in having that vigorous, warm-hearted figure, Basil Spence, riding at the head of the column, and ready any day to break a lance in the tilt-yard for the sake of the colours that he and all architects carry.

As successor to the achievements as well as to many of the problems which he has handed on, I want first to acknowledge my debt and my duty, and then to begin with practical matters.

\* \* \*

I spoke just now of our partners in the building and development industries, but I want to start with one who is not much interested in development, in fact is usually against it. I mean the preservationist. Preservation has been a mainly amateur activity since the time of William Morris; and I hope Sir Alan Lascelles, as chairman of the Historic Buildings Council for England—and there could not have been a better one—will forgive me if I say that it only became an industry in 1953. And as the Minister of Works is responsible for making the grants voted by Parliament (which he does on the recommendations of the Historic Building Councils) it is to that extent a nationalized industry.

But the amateurs and the professionals in preservation have greatly increased in numbers at the same time. Many of them are architects; and there are practical as well as ideological reasons for this. On the practical side is the perpetual task of building maintenance. Out of a total expenditure by the industry of £2,000 million a year, in round figures, some £600 million—or 30 per cent—is on account of maintenance, repairs and conversions. No one knows how much of this is for the preservation of historic buildings, but the proportion cannot be negligible. As the technical problems of normal maintenance are intensified and made more critical when the structure has historic value, it is a good thing that architects are giving more attention to the practical side of this work and that a few are now to be specially trained for it.\*

The ideological aspects of the preservation movement are not so easy to analyse. Architects have played a leading part in the formation and the affairs of civic, amenity and preservation societies up and down the country, in the CPRE & W, the Georgian Group, the Civic Trust, and the departmental advisory committees and councils. They have done this, I think, out of sheer respect for architecture—no matter what its period. They have realized what a large part it plays—particularly in a country with such a remarkable building inheritance as our own—in the setting of our daily lives; and they have shared the conviction of all true conservationists—that we are trustees for posterity. Therefore nothing that is significant in our social, scientific, building or natural history should be either needlessly or heedlessly destroyed.

In this variable weather, I think we have a better chance of keeping our seven lamps alight if we find better means of combining with the other partners in the building and development industries—even if sometimes in a minor or advisory capacity

\* Three lectures given under the terms of the Paul Shuffrey benefaction to Lincoln College: 1960.

\* E.g. in London and York. The Dean of Gloucester's Committee is initiating a special course in the preservation of historic buildings.

All this has added immeasurably to the strength of the preservation movement. It is teaching people to see and, having seen, to care—not only for historic buildings, but for their environment as a whole. I am sure it is a good influence, also, on the architect. Far from giving him antiquarian or revivalist leanings, it is more likely to confirm him in his architectural task, which is to reach an equal significance in his own contemporary work.

When, however, the motive for preservation is fear—fear of change, fear of the loss of an accustomed scale or character, or the vague fear of something worse which may take the place of what is demolished—then the architect suffers from a divided loyalty. If he has any confidence at all in his powers of design, he cannot agree that the new must be worse than the old. But these 'votes of no confidence'—for that is what they are—have become quite common in recent years. In a few individual cases they may have been justified; but it would be a sad day for this Island Kingdom if preservation of the past were to be regarded as a more important principle than building for the future.

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In looking towards this future, our most important partner in building enterprise is certainly the client—both public and private—who has the will to build and the resources to build and the intelligence to call to his side the right combination of skills to translate his loosely-formulated requirements into reality.

The whole architectural profession knows that this ideal client exists, and acknowledges the fact with deep gratitude. But he does not exist in very large numbers, as the Pilkington Report has shown only too clearly in terms of comparative remuneration over the working life of a number of professions. Architects were at the bottom of this list.

Not only is the ideal client infrequent, but the average client usually requires a wider range of services from his architect than he did 50 years ago. What is even more significant is that these services are spread over a longer period of time. During that time overheads run on and a loyal design staff stands by. This is not necessarily the client's fault. All organization in a highly industrialized and democratic society tends to become more complex; and we are a long way from Xanadu, where 'Kubla Khan a stately pleasure dome decreed'. Poor Kubla today (and he might not be an individual any longer, but a corporation or a trading company) would need planning permission first and he might not find it easy to get it. He might have to find a developer who would take a building lease from the landowner, finance the pleasure dome and rent it to him when built. There might be delay if this is permission were dependent on other domes being included in a comprehensive scheme; or if Parliament decided that even occasional pleasure domes were too frequent or had no export value, and asked for a Royal Commission.

And Kubla's architect (whether private or official) would have to advise him on loan sanctions, prepare half a dozen alternative designs, correspond with the Edwardian Pleasure Group and the Anti-Dome League, fight for a subsidy on the number of habitable dwelling units provided, and on the 'abnormals', give evidence at public enquiries, satisfy the Royal Fine Art Commission, advise on the type of contract, and then after years of indecision produce working drawings and full particulars at a month's notice, so that a firm price contract without variations, could be let forthwith.

That would not be the end of the matter. In the course of construction a horrified Kubla would ring up to say that the Anti-Uglies were holding a mock funeral in front of the pleasure dome and what should he do? Get a consultant?—with Thurber's famous character one might cry: 'Well, if I asked for the wrong number, why did you answer the 'phone'?

Kubla Khan, of course, was a purely mythical personage; but his relations are not unknown in the British Isles. I have mentioned him to illustrate my point that commissions are no longer simple and autocratic, but administratively complex; and also as an introduction to two examples of the way in which that complexity could be reduced, and a waste of professional talent avoided. On both of these we are appealing to our official clients in the friendliest way possible to discuss the matter with us.

The first example is competition by tender—the methods now adopted for securing competition by developers and their professional advisers, to rebuild certain key areas in the centres of towns and to pay a ground rent for it. I do not propose to weary you with the details of our case;\* but as it has raised controversy as well as interest, I would like to take this brief opportunity to comment on it. The RIBA has organized architectural competitions for a very long time. The basic principles are that the conditions of competition should be the same for all competitors and binding on them, and that the name of the assessors and the method of assessment should be known at the outset. These stipulations have in fact passed into the code of practice for international competitions as approved by the International Union of Architects—the body who are about to hold their sixth congress here in London next July.

Without these safeguards there is likely to be considerable waste and frustration of effort on the part not only of the architects who prepare plans, perspectives and models, but of the professional advisers on finance, surveying, valuation and engineering, and of the development company itself.

This was why we invited local authorities to discuss remedies; and I think we were right to do so. But the suggestions we made may not be altogether correct or complete. In particular, we may not have given sufficient emphasis to the importance, on the one hand, of having combined professional expertise in the drawing up of the original programme and, on the other, of having a thoroughly realistic and integrated scheme—economically and architecturally—between the developer and his architect. Both these suggestions were implied, but may not have been sufficiently stated. We should welcome further discussion on this, both with the authorities and with our sister professions; and in particular the advice of the Royal Institution of Chartered Surveyors, if they are willing to give it. Our main object is to ensure that these competitions are fair, productive, and not too wasteful in terms of professional skill and effort.

The second matter on which we are appealing to local authorities is the appointment of chief architects wherever there is a big building programme to be carried out by or on behalf of the authority. We hope that we shall have the goodwill of all our professional colleagues in this, as we know we have that of the Minister of Housing and Local Government. The efficient administration of building requirements can seldom be achieved by a committee, or by officers with other overriding responsibilities—and memorable architecture never. But this is what is badly needed if the centres of our towns are to be rebuilt and if the urban scene is to regain something of its former quality, despite the traffic explosion which is occurring everywhere, and the mechanical invasion which is creating a complication of piped and cabled services that the eighteenth century never knew.

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What of our partners the engineers—civil, municipal, structural and mechanical?

In my own experience—and I have worked with engineers for most of my professional life—I have noted a significant fact: that wherever there is collaboration between architect and engineer on a common problem involving design, calculation and construction, friction quickly disappears. It exists only where working collaboration has not taken place, or is forced by some administrative arrangement onto the unwilling or the incompetent. I also believe that the mutual respect which responsible professionals owe one another in a technological system which grows more specialized every day, could be complemented by closer definition of each other's aptitudes and by a greater willingness to play an advisory role where the major executive responsibility belongs to a colleague.

Architects, for example, are used to calling in engineering consultants on the design, structure and equipment of buildings in which human considerations are dominant—by which I mean the way the building is used, its social and biological requirements, its appearance as a symbol, or as part of an urban or landscape setting.

Conversely, engineers in charge both technically and administratively of large construction programmes, can and should call in the architect to advise on the human and landscape aspects of their work—and are frequently doing so—without relinquishing their major responsibility for plant and machines,

\* They can be read in the printed circular and covering letter sent to all urban local authorities by the RIBA in July 1960.



which they understand far better than we do, and which often determine—sometimes a long way in advance of actual construction—the general form and programme of building. Nonetheless, as the Electricity Generating Board is showing in the nuclear stations at Berkeley, Bradwell and Hinkley Point and in coal-fired stations, such as Marchwood and High Marnham, the architects' contribution, though modest, can be significant, all the way from first considerations of massing, to the last section of perimeter fence. New generating stations—and even switching stations—will, we hope, provide further evidence of its value. This is not a case for power politics, which has never been a weapon in the artist's armoury and should not be used by the technician. It is simply a question of whether the architect has a contribution to make, and if so, how to establish the terms of co-operation in which it can best be made.

This has been in our minds during the recent controversy on motor roads. Mr. Frederick Gibberd showed very clearly in a paper he read here at a joint meeting,\* that as these roads penetrate the built-up areas they become more and more of an architectural problem. Traffic engineering then becomes part of the planning of buildings, of car parking and garaging in all its forms, of street blocks and of complete sectors of towns, and this in turn introduces the control of land use, valuation, policing and management. If architectural and town planning advice is left out of this combined operation, even though it may neither initiate nor direct it, the gain in one form of circulation will be cancelled by the loss in others and the object of all journeys into the town made less attainable and less worthwhile.

A foreign visitor to these shores made this satirical comment to me: 'In your towns,' he said, 'you seem to have many over-employed men and a lot of under-employed motors; in your beautiful countryside there are unemployed men and a lot of over-employed machines.'

In our job as advisers on building and building development—in all its forms—our constant problem is to work towards better solutions through the actual facts of the case. This is necessary most of all in our relations with the building industry, which includes owners and developers, building and civil engineering contractors, and the manufacturers and suppliers of building materials. We cannot be all things to all men; but we should represent something definite and necessary to each section of the industry.

To do that we must be professionally independent, whether we advise government departments, local authorities or private clients. Architects have many attachments. We enjoy working on our own; but we also enjoy working with scientists and administrators, craftsmen and builders, artists and technologists of all sorts. But whatever our attachments, we strive to retain an independent outlook. Otherwise our architectural judgement is muffled, and therefore worthless. It is this aspect of the so-called 'package deal', and of the incorporation of architects into other types of office where they cannot give objective advice to their clients (or sometimes even meet them) that causes us regret; it is not the challenge of a new form of building organization. That could be met by new forms of professional organization. Personally—and here I am not briefed by the RIBA Practice Committee—I should be happy to see some minor amendments to our Code, to enable a more complete technical design service to come into being.

The past, on the whole, is comfortable. As the historian A. J. P. Taylor remarked, 'the great thing about the past is that it has happened'.

The present, in which so many things are happening, is hardly ever comfortable. But what of the future? Are we moving towards the millennium, or only to 1984? My colleague at University College, Professor Stuart Hampshire, spoke last July about the conflict between art and politics. He said: '... if works of art, in common with everything else, are to be judged ... by their relevance to contemporary social problems, the absence of irresponsible experiment, of free self-discovery, will be so deadening as to make life impossible. The pressure of social conformity and social utility will be too great, and we may have more of these pathological political movements, revolutions of destruction, which the twentieth century has already seen'. And he ended his talk by remarking that '... genuine poets or artists are, as Plato said, a subversive and unpredictable element and a nuisance in any well-knit society, in which every class of person knows his place and function'.

This made me wonder whether the choice before architecture in the future would be to become more of an enjoyment or more of a bore. For architecture cannot climb as easily into fantasy as poetry or painting; although Mr. John Betjeman will tell you that every now and then it has a jolly good try. But when I came to think of it I realized that it is the headiest draught of all. Like drinking beer through a straw, it may take a long time, but it is the most intoxicating in the end.

There is nothing so relaxing to the fretted individual as creating something with his hands; and the building or rebuilding of a housing group or a town centre could have the same tonic effect on a community. When the viewing gallery is opened overlooking a site excavation, when scaffolding climbs into the sky, and rooms take shape, and great interiors like the Festival Hall or Coventry Cathedral fill with sound, then the neuroses of urban life fall away—and not only for the moment. The problem is to get as many people as possible to participate in the adventure of building, and having participated to remain attached, so that the environment as a whole improves.

I am, therefore, quite confident that architecture will be more enjoyed in both the passive and the active sense. And if I may venture a prophesy, it is that this country will succeed in avoiding an urban landscape dominated by office buildings, as a contrast to the landscape of the Middle Ages, which was dominated by religious buildings. The growth of administration in every activity of life, and the fact that office rents bring the highest return (except perhaps for illuminated advertisements) is bound to mean an increase of tall, functional, cellular slabs and towers. What, I imagine, we shall not allow is their displacement of all other buildings of smaller bulk and greater individuality, such as clubs and music halls and theatres and small libraries and galleries, and all the varied structures that enshrine social history and provide for social leisure. But to do this will require some hard thinking.

At the moment our leisure is punctuated by noise and congestion and by intermittent bulletins of even more disturbing news. In order to escape from the horrors of leisure, we return quite gratefully to the joys of work. We long for the air-conditioned office after a frustrating week-end spent mainly in a traffic jam, and appreciate the desk or the work-bench to ourselves after the queue in the cafeteria, the crush in the underground, and the mass-recreation of the beach.

But in fact we are only at the beginning of an era when the pattern of leisure is going to be more varied and more significant than the pattern of work is now. With it will come a richer architecture, both domestic and public. I hope that in that golden time we shall have PLAYGROUNDS again in place of ACTIVITY AREAS, that clubs and common rooms and playhouses throughout the country will be enabled to survive, that the new universities and colleges will be companionable as well as distinctive groups of buildings, and that the National Theatre will be playing to packed houses on the South Bank of the Thames.

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Proposing a vote of thanks to the president, Sir Alan Lascelles said that for the past seven years Sir William Holford and he had been colleagues on the Historic Buildings Council for England. At all times and in all sorts of emergencies and dilemmas, Sir William's wise counsel and serene temper had been of inestimable value.

'Many of my generation, which I grieve to say is just 20 years older than Sir William's,' said Sir Alan, 'find the idiom of present-day architecture somewhat bewildering. We continually have to remind ourselves of that wise couplet of old Sir Edmund Gosse—"My faith in beauty shall not fail because I fail to understand". I think a good many of my contemporaries do fail to understand that idiom, but, for my part, since listening to Sir William this evening, I am a good deal less puzzled and very much reassured.'

Seconding, Sir Julian Huxley said: 'Your president is one of the rather rare, really all-round men, and he sees the need for all-round planning. Some of us in this country feel we are more planned against than planning, but your president plans for us. He plans for the country. He is now chairman of that admirable organization, Political and Economic Planning, and he has set in motion various important schemes for planning urban areas (including the area round St. Paul's) which would, if properly realized, help to make urban areas something to be proud of.'

\*R. Nicholas and F. Gibberd: *The Impact of Motorways on the Urban Environment*. Paper read at joint meeting of the Institution of Civil Engineers and the RIBA, March 15, 1960.

† See *The Listener*, October 13, 1960.

Extracts from the presidential address  
to the TPI last week by R. Nicholas,  
City Surveyor of Manchester

FROM a planning point of view there could hardly be a more interesting and perhaps perplexing time than the year which unfolds before us. The effects of an increasing population and a progressive increase in numbers of families has produced a greater need for building land in many areas than was generally envisaged at the time when our development plans were being made. This fact, coupled with the very laudable and determined attempts to maintain green belts and to limit inroads into valuable agricultural lands, is creating scarcities which are, in many areas, affecting development land values.

However, the fact that houses for renting are not available, and a rising standard of living, make more and more people willing to become house owners.

It is evident that as these influences continue, the developer will find it economically attractive to turn his attention to the redevelopment of areas which are at present occupied by low density dwellings, built at the time when large families predominated and when there was no serious problem. In our circumstances this is a most desirable trend.

Many of our larger urban areas contain substantial parts which were developed at extremely high densities some 60 to 100 years ago, much of which either because of the nature of the original construction or because of inadequate maintenance is now 'slum' dwellings.

As we know, the redevelopment of these areas, which is now our most urgent social requirement, is dependent on the availability of lands into which part of the overcrowded population can be moved.

*RIBA Christmas card, available in blue, gold and red, designed by Herbert Spencer. The cards are 1s each or £4 per hundred. Overprinting orders can be accepted for 30s up to 100 and 15s per 100 thereafter*



Christmas 1960

Unfortunately, the rapid movement which is required in the early stages of this process has not been properly appreciated. Experience has shown that the movement which could be attained by the desirable expansion of nearby small towns is generally delayed by drainage and other service problems or by local prejudices which have to be allayed. Also, unfortunately, there has been no adequate continuity in the provision of new towns. The failure to meet the problem has resulted in an official encouragement to accept higher densities in redevelopment than most planning authorities have previously thought desirable.

There are even suggestions that open space standards should be reduced, and that golf courses and racecourses should be built upon. One is tempted to ask, what are people going to do with their ever-increasing leisure time?

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It is of interest to speculate on how this leisure will be spent. No doubt the younger people will devote some of it to recreational pursuits—if the necessary facilities have been made available—while the large majority will presumably devote some to the pleasure of pursuing various arts and crafts, as a means of occupying their minds and hands in a satisfactory and engrossing way.

Speaking of the younger people, one cannot help but wonder whether some of our present delinquent troubles are being caused by a lack of understanding of what the young people of today want. It would seem to me that there is a growing spirit of independence which becomes generally evident at a much earlier age than heretofore, and that probably one of their main requirements is to have the necessary tools and materials so that they can provide the things they want by themselves for themselves.

In the last few years, the speculative possibilities of central area redevelopment have been seized upon, and rebuilding projects are proceeding with such success that without some international calamity, an expanding growth of this form of redevelopment can be expected.

There is talk of comprehensive redevelopment, but I wonder if there is any widespread appreciation of the fact that the city centres we must now build will have to be entirely different places from those which exist today. It seems to me that the need for comprehensive redevelopment arises from the following factors:—

1. To secure the removal, as far as possible, of the conditions which now exist where pedestrians and vehicles are intermixed and where consequently an increasing number of accidents will arise, involving loss of life and limbs, as the use of the motor-car continues to increase.
2. To encourage the fullest employment of modern methods of building construction which can only be obtained where large sites are available.
3. To provide good standards of design, i.e. daylighting, fire precautions, lift services, car parking, etc., which cannot be obtained by the single replacement of many of our existing buildings.

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The motor-car is becoming more and more the accepted means of locomotion, and consideration is being focused on the provision of good working conditions for the black-coated worker. Presumably, good daylighting conditions and car parking space will become an essential means of securing the services of such, and indeed other, workers.

With these possibilities before us, surely our plans for at least the larger central areas should envisage that a more or less complete segregation of pedestrians and vehicles may be required in the future and our rebuilding projects should be designed so that this can be attained whenever conditions so require. A little thought will disclose that much could be done in this direction without any significant increase in costs at the present time.

I have read with considerable interest the RIBA statements on



'Rebuilding our Cities' and on 'Competition by Tender'. One of the difficulties we and our architect friends have to face is that in the end we have to satisfy the requirements of our clients. I make this point because I am sure that where development is to be used for private purposes, too much time should not be spent on producing detailed three-dimensional redevelopment proposals until one has full information on what the building developer wants to do. He is the person who knows or who has the fullest advice on the commercial opportunities which he proposes to satisfy.

Of course one must indicate the land uses and the planning standards, plot ratio, daylighting, car parking, etc., which should be applied, and also produce three-dimensional ideas as the negotiations for comprehensive development proceed.

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Just a brief word on competition by tender. My authority has been engaged in this nefarious activity. In the absence of any other redevelopment projects from which a firm idea of the market value of central area sites could have been obtained, the method of competition by tender was the only way in which the appropriate market value could be determined. The schemes which have been offered have of course been determined by the client, that is the building developer, and preconceived three-dimensional ideas would sometimes have proved quite faulty. I am glad to say that so far as my own authority is concerned, acceptance of the highest tender has not been the deciding factor, and that every consideration has been given to the quality of the proposals, both from a planning and an aesthetic point of view.

With a rising standard of living, how can we expect to control the growing use of the motor-car? When people earn more money they naturally expect to obtain some additional advantages as a reward, be it television sets, washing machines or motor-cars.

Obviously, the extent to which the motor-car is used must depend on the cost involved and how much the user can afford. Parking meters and off-street parking charges may have some controlling effects until the standard of living rises so that the costs involved become less significant. There must come a time when the capacity of our urban radial roads may also prove a controlling factor, but in the meantime all possible alternative routes through subsidiary roads will have been brought into use at peak hours. This use carries with it fearful risks to pedestrians and particularly children.

All this is upon us, and there is no further time for delay in the provision of urban 'freeways' or roads which will have no cross-traffic either vehicular or pedestrian and no building frontages with access of any kind thereto.

I believe that it may be found that the provision of two or three radial 'freeways' and an intermediate ring 'freeway' in large conurbation areas may so relieve the existing main road system that the vast improvements which will have to be applied to this system may be deferred, at least for some few years. This possibility can only be confirmed by conurbation traffic surveys. Such a survey was undertaken in the Manchester area in May of this year and the complicated process of classifying the traffic movements disclosed by the survey will be completed early in the New Year.

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London of course presents a special problem, with its elaborate public transport systems, and the tremendous cost which an overall improvement of the existing main road system would entail, but I believe it may be found in London, as in other large urban areas, that there are large falls in property values behind the main road frontages and that a number of new 'freeways' could be developed at much less cost than might be expected.

I do not believe that the future motor-car problem can be ignored in London—although I must confess that I am in favour of anything which might help to reduce the peculiar attraction of the Metropolis, and which makes people prepared to spend up to two hours a day travelling to and from work in uncomfortable and overcrowded conditions.

Apart from the need to have a new highway plan for London and other conurbations, it surprises me to see some new urban highway projects which are still being built to conceptions which were accepted in the age of the horse-drawn vehicle.

For instance, new traffic junctions flanked with shopping and business frontages, but adorned with zebra crossings and pedestrian guardrails instead of the horse trough.

#### Relations with other technical professions

This leads me to the demarcation of the responsibilities and work of the planner and that of other professional persons. The planner—of course I should say the town planner, or, with hesitation, the town and country planner—is trained and skilled in all those technical activities which need to precede the work of members of the other technical professions. The general public certainly do not understand what this means and indeed I sometimes doubt whether the ministries concerned always do, and I find it impossible myself to describe what it means in a few simple words.

Let me give just one illustration. One would imagine from public utterances that the architect skilled in the design of buildings has all the experience and knowledge which is required to plan comprehensive central area redevelopment. The planning of a building, or even a series of buildings, is very different to planning of an overall character, in which the town's future requirements in proportions of industry, shopping, residential accommodation, civic buildings and semi-civic buildings the future traffic requirements and the way in which resources are to be deployed, statutory service problems and so on, must be assessed. These are far away from the problems involved in the planning of buildings, and are on a much vaster scale.

My remarks are not intended as any criticism of the architectural profession. The culmination of the work of the planner and, indeed, the planning which he undertakes, must provide for the operations of the other technical professions and must often be based on advice and assistance received from them in the formative stages. In city centre redevelopment, obviously the architect would have responsibility for the actual buildings, the engineer would undertake the repositioning of roads and services and the construction of new roads, and the valuer would be concerned in the considerable financial deliberations which would be involved. Of course, the architect would get most of the praise because his work would be more visible than anybody else's. Having read with considerable interest Sir William Holford's comments at the annual conference of the Association of Municipal Corporations, I use the word 'praise' with some hesitation.

We must not let people remain unaware of the key work which the planner has to undertake in comprehensive development and redevelopment.

Perhaps we fail to educate the public in this understanding because we lack the facilities to maintain local planning exhibitions of all the projects upon which we are engaged. I am sure we would all agree that there is a very important need for exhibition facilities in every town hall, or municipal offices, in which such planning projects on an ample scale could be displayed as a continuing event.

In case I may be accused of bias, I must confess that there is something wrong with the aesthetic sense of many engineers, which surely points to the fact that there may be something wrong with the education and training of engineers. If so, this ought to be corrected.

Perhaps there is something wrong with the education of many technical people today, in that in their formative years they may spend too much time collecting qualifications and passing duplicate and even triplicate examinations in the same subjects, and too little time on a broader education in the arts.

It may well be that professions which impinge on one another, as architecture, civil engineering and planning do, should grant reciprocal exemptions, under proper safeguards of course, so that these duplications can be avoided.

#### Training the planner

While we are giving consideration to publicizing our work, we must remember that our successful operations depend on the adequate and proper training of planners. We do not all expect to become qualified as practising architects, but we want sufficient basic knowledge so that we know when and in what form we require architectural advice and so that we understand that advice and its implications when it has been obtained. It is the planner to the larger urban authorities who needs to become specialized in this aspect of planning work, and it would therefore seem to me that consideration might be given to the establishment by the Institute of a Diploma in Civic Design which could be taken by those of us who expect to work in this field.

# St. Chads Church at Rubery, Birmingham

*The Architect & Building News*, 9 November 1960

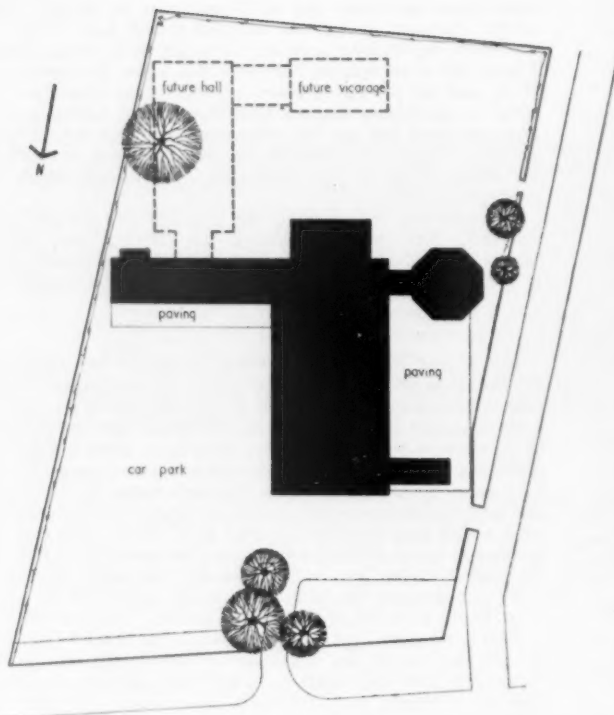
Lavender, Twentyman and Percy, architects  
G. W. Sidebotham and G. Corfield, assistants  
Silk and Frazier, quantity surveyors

THE new church had to be built alongside an existing temporary church hall, leaving room at the back of the site for a future permanent church hall and vicarage. The entrance into the vestry block will eventually be used as the entrance to the church hall from the car park. Similarly the choir vestry, with its tea bar, will eventually serve the dual purpose of vestry and committee room.

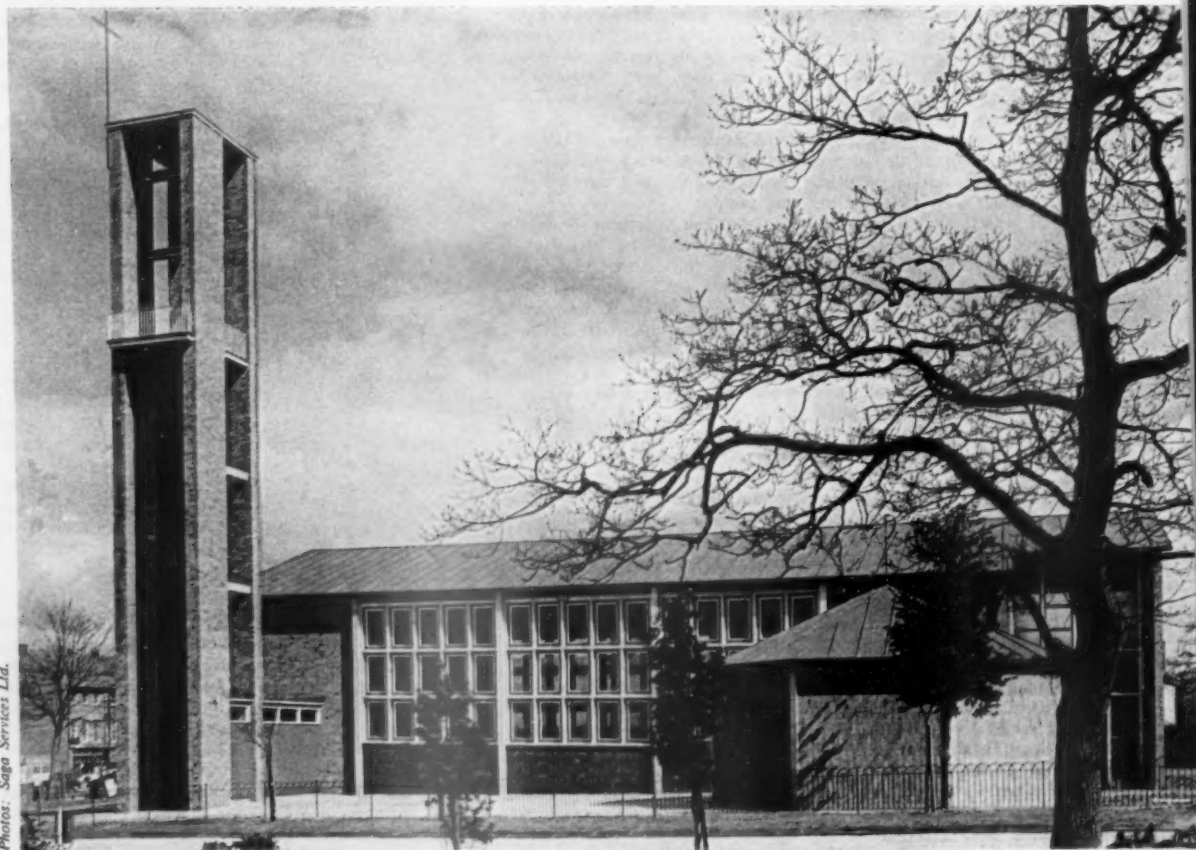
## Planning

The clients required a church to seat 420, including a Lady Chapel seating about 35. They wished the choir to be at the Sanctuary end, and this requirement, together with the narrow width of the site, was mainly responsible for the plan shape. The Lady Chapel is designed as an octagon, separated from the body of the church by a porch, so that it can be used and heated separately for weekday services.

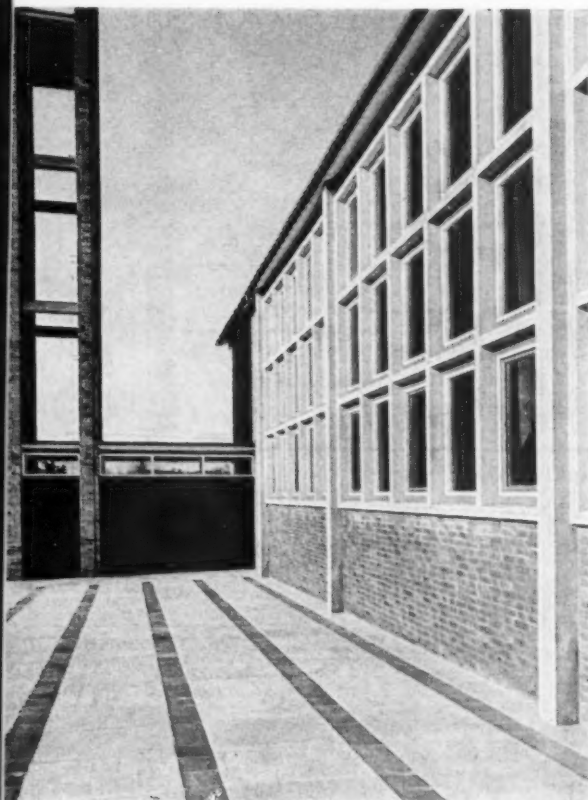
SITE PLAN



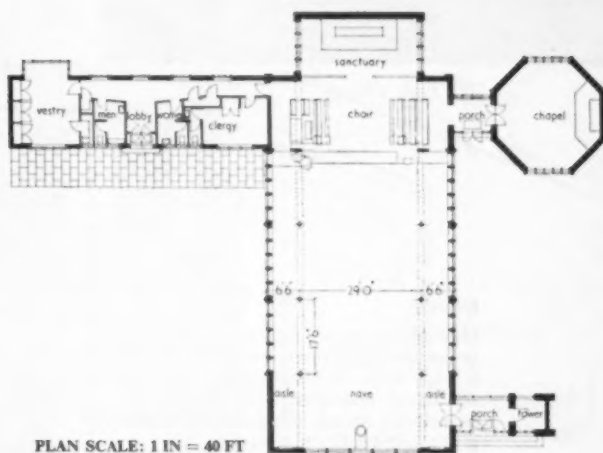
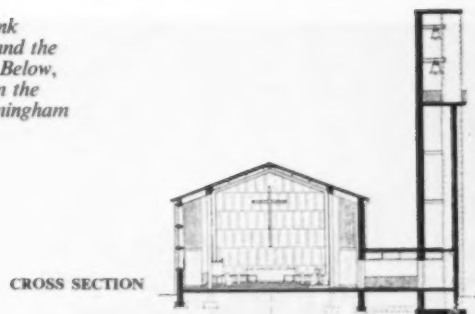
*West elevation and campanile*



Photos: Saga Services Ltd.



Left, the entrance link between campanile and the body of the church. Below, the church seen from the main Bristol to Birmingham road



### Construction

The main block consists of a reinforced concrete frame supporting a folded slab concrete roof, while the tower consists basically of three vertical concrete fins tied together by concrete roofs and beams.

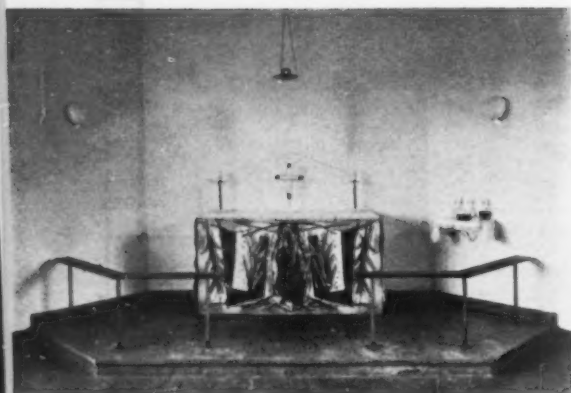
In view of the industrial atmosphere it was decided to clad all concrete, with the exception of small cross beams in the tower. The main cladding is brown brick, with panels of black brick set in black mortar. Black slate is used for the five panels over the windows on the main road frontage, and on one side of the tower. Concrete window mullions are faced with Portland stone; the soffit of the tower roof with pale grey mosaic; and the balcony soffit with pale green mosaic. Roof finish is copper on an insulating screed, except over the balcony and porches where asphalt is used.

The painted aluminium Diocesan coat of arms at the base of the tower was designed and made by Geoffrey Clarke. Above windows on the main road frontage it is hoped to have five pieces of metal sculpture.

*continued overleaf*







The Lady Chapel

### Interior

Daylighting was considered of great importance and the nave windows give a high level of illumination without admitting excessive solar heat; the chamfered reveals eliminate glare and give a soft quality to the light.

Floors of the Sanctuary, Choir, Lady Chapel and porches are of Hornton stone. Granwood blocks have been used in the nave while in the vestry block floors are of thermoplastic tiles and brown quarries.

Walls generally are plastered, those in the nave and the Lady Chapel having a scraped finish. The main ceiling of the nave is of specially designed ribbed and slotted fibrous plaster for acoustic absorbence. The Lady Chapel ceiling is sprayed with acoustic plaster and the end wall of the nave has panels of acoustic absorbent material.

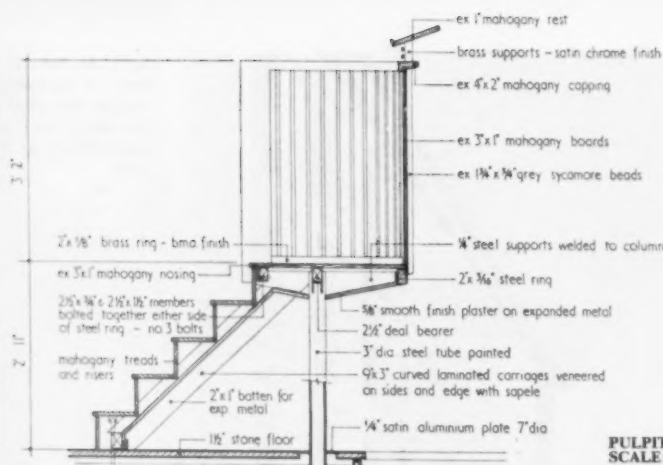
The new frontal in the Lady Chapel was designed and made by Margaret Kaye.

#### General Contractors:

HENRY WILLCOCK & CO. LTD.

#### Sub-contractors and suppliers:

Acoustic Flooring: Rowan & Boden Ltd. Acoustic Absorbent on End Wall of Nave: May Acoustics Ltd. Altar Rail Supports, Cross in Sanctuary and Door Furniture: James Gibbons Ltd. Asphalt Roofs: Birmingham Val de Travers Ltd. Bells: John Taylor & Co. Ltd. Bronze Cross and Railings to Tower: Best & Lloyd Ltd. Concrete Reinforcement: G.K.N. Reinforcement Ltd. Copper Roofs and Rainwater Goods: Arthur Scull & Son. Electrical Installation: Reynolds & Bradwell Ltd. Facing Bricks: Blockleys Ltd. Fencing to Site: Bayliss, Jones & Bayliss Ltd. Foundation Stone: Pancheri & Son. Joinery: Henry Willcock & Co. Ltd. Lightning Conductor: W. J. Furze & Co. Ltd. Metal Windows: James Gibbons Ltd. Mosaic Soffits on Tower: Roman Mosaic Co. Ltd. Nave Flooring: Granwood Flooring Co. Ltd. Organ: Nicholson & Co. (Worcester) Ltd. Painting: E. Brown & Son (Wednesfield) Ltd. Plastering: G. Cartwright & Sons Ltd. Portland and Reconstructed Stone: South Western Stone Co. Ltd. Precast Window Surrounds to Nave Windows: Bradleys (Concrete) Ltd. Sanitary Fittings: A. D. Foulkes Ltd. Slotted Fibrous Plaster Ceiling to Pulpit: Durose & Sons Ltd. Steel Frame to Pulpit: Durose & Sons Ltd. Stone Paving: The Hornton Stone Quarries Ltd. Surface of Car Park: Tarslag Ltd. Suspended Ceilings to Aisles: Expanded Metal Co. Ltd.

PULPIT DETAIL  
SCALE: 1 IN = 2 FT

### COST ANALYSIS OF CONTRACT PRICES

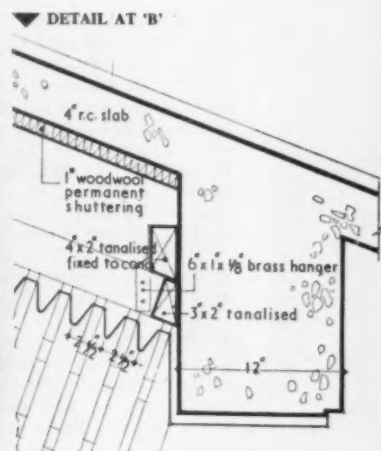
Tender date .. .. .	December 1957
Work started .. .. .	February 1958
Work completed .. .. .	December 1959
Tender price accepted .. .. .	£39,500
Highest tender price .. .. .	£43,500
Lowest tender price .. .. .	£39,500
Superficial area of buildings .. .. .	5,883 sq ft
Cube of buildings .. .. .	158,284 cu ft

	Total £	%	Per F.C. s. d.	Per F.S. s. d.
<b>Foundations</b>				
Traditional concrete and brickwork in conjunction with concrete column bases. Average loadbearing soil including ground floor slab .. .. .	2,790	7.28	4½	9 7
<b>Superstructure</b>				
Floors: Concrete ground floor only included in above .. .. .	Nil	—	—	—
Walls: Brickwork cavity work, part with insulated block inner skin .. .. .	4,475	11.67	8	15 5
Roof: (a) double pitched concrete slab vermiculite screed, copper sheeted externally; (b) Vestry—copper on Stramit .. .. .	7,010	18.28	1 0	24 1
Windows: Metal in subframes, some hardwood glazed direct, no special glazing .. .. .	2,780	7.25	4	9 7
Facings: Facing brick, slate panels and stone and reconstructed stone dressings .. .. .	4,326	11.28	6½	14 11
<b>Finishes</b>				
Ceilings: Main Church—suspended fibrous plaster, suspended plaster on c.m.l., acoustic plaster on concrete. Vestry—plasterboard and skim .. .. .	1,960	5.10	3	6 8½
Doors: Mahogany solid moulded and glazed doors, painted flush and moulded softwood doors .. .. .	1,320	3.45	2	4 7
Walls: Generally thistle but part stone faced and part acoustically treated .. .. .	2,595	6.77	4	8 11
Floors: Hornton stone, granwood, accotile and quarry pavings .. .. .	2,026	5.28	3	6 11½
Cupboards: Clergy and choir vestry (four only) .. .. .	135	0.35	—	5
Other Fittings: Usual Church furniture, choir stalls, pulpit, lectern, altar, rails, font, etc. . .	3,000	5.47	3	7 1½
<b>Installations</b>				
Heating: Electric underfloor system and water heaters. Lighting: Electric .. .. .	2,503	6.53	4	8 7
Plumbing: Copper wastes, copper cold water services only, excluding rainwater goods .. .. .	132	0.35	—	5
Drainage: Separate storm and foul systems in stoneware .. .. .	1,095	2.85	2	3 9
<b>Site Works</b>				
Site Clearance .. .. .	560	1.46	1	1 11½
Paths and Car Park .. .. .	965	2.52	1	3 4
Fencing and Walls .. .. .	435	1.13	—	1 6½
Seeding .. .. .	265	0.69	—	11
<b>Specials</b>				
Bells (two), Lightning Conductor, Foundation Stones, Bronze Crosses and other Motifs, Flag Pole .. .. .	878	2.29	1	3 0½
<b>Total cost of job (includes altars and fixed joinery, excludes organ and chairs)</b> .. .. .				£37,025
<b>Total cost per ft super</b> .. .. .				£6 5s. 11d.
<b>Total cost per ft cube</b> .. .. .				4s. 8d.

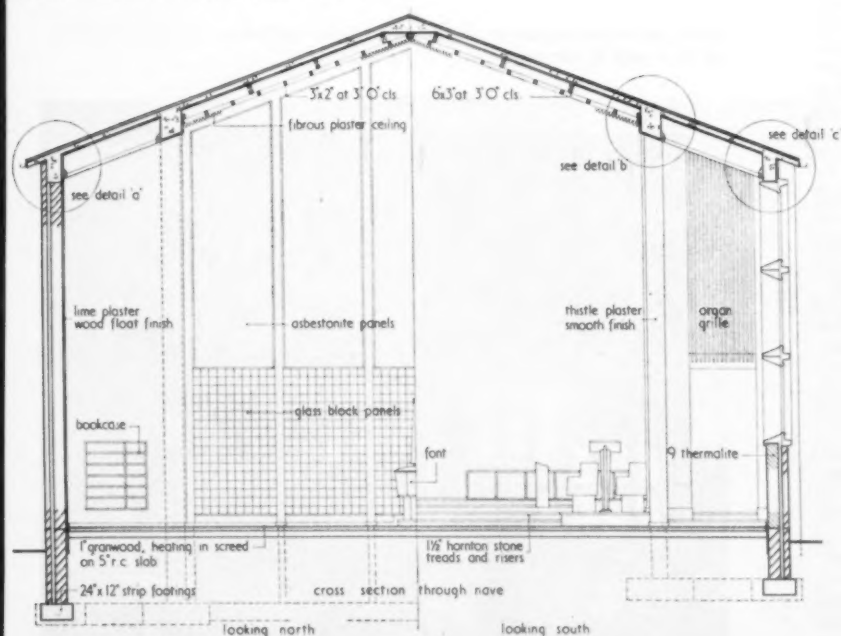




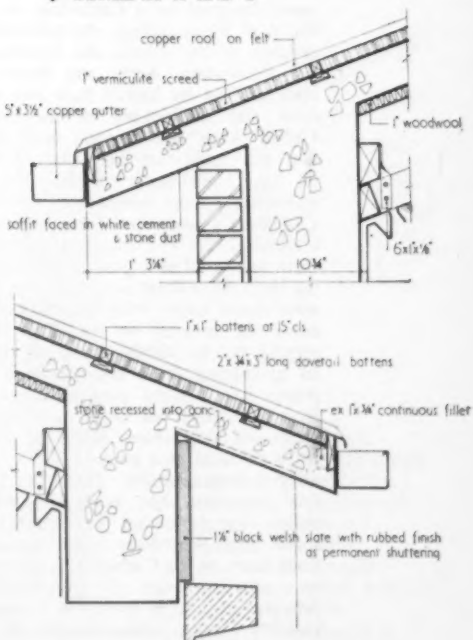
*Inside, nave windows give a high level of illumination without admitting excessive solar heat; chamfered reveals eliminate glare and give a soft quality to the light.*



▼ **DETAIL CROSS SECTION** SCALE: 1 IN = 10 FT



▼ DETAIL AT 'A' AND 'C'



**George E. Pace, architect**

THE whole of the structural work in Llandaff cathedral has now been completed. The culmination of eleven years' work; the restoration became necessary after a German land mine reduced the cathedral to almost total ruin in 1941. Permanent restoration was started under Sir Charles Nicholson. Very soon after the start of the work, Sir Charles Nicholson died and the present architect was appointed. On the following pages we briefly describe this work.

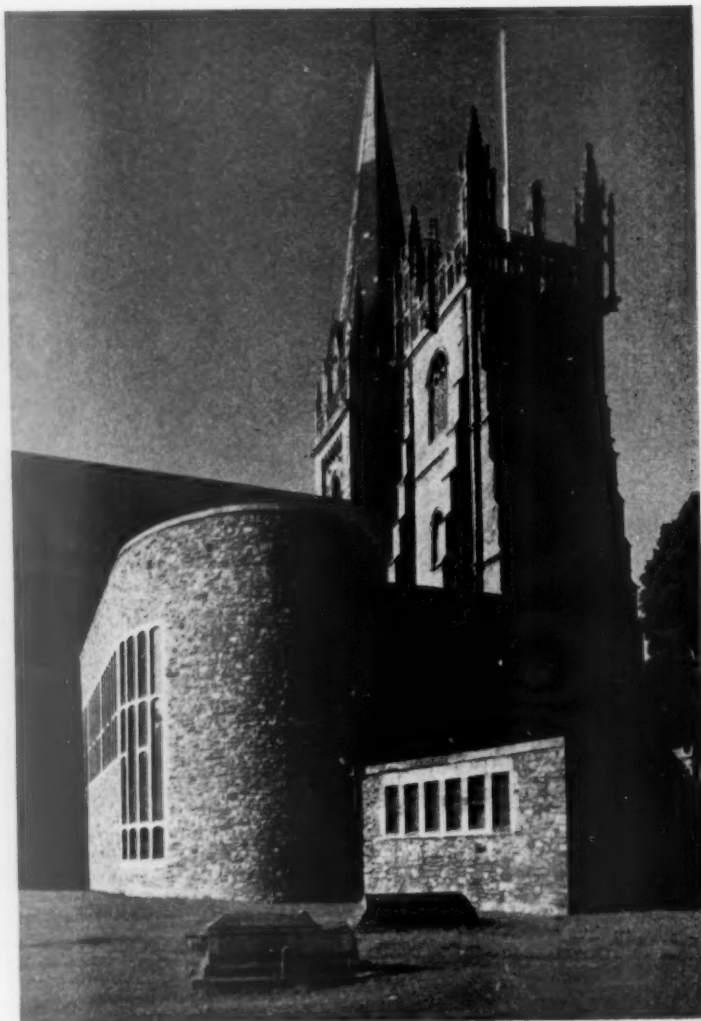
**New structural work**

The Welch Regiment Chapel, the Processional Way, the new Vestries and the alterations to Prebendal House, have all been completed, and Consecrated or Dedicated. The most important new work in the Cathedral is the Pulpitum. The following description shows the purpose of a Pulpitum in a modern Cathedral and gives an insight into the manner in which the Architect evolved the final form and the use he made of his collaborators, including Sir Jacob Epstein.

**The pulpitum**

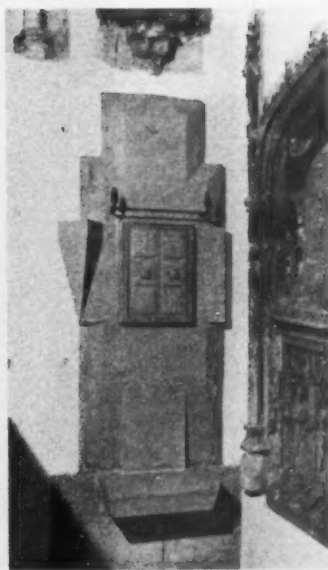
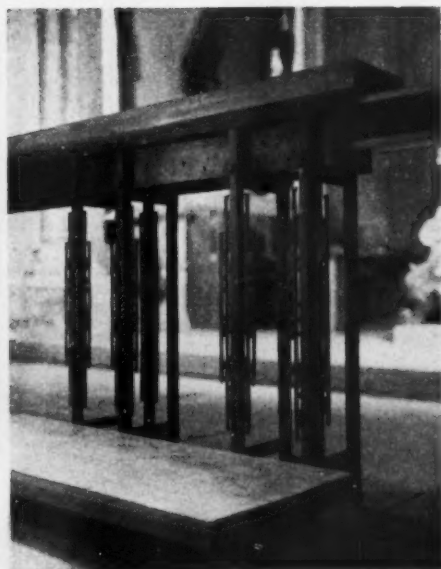
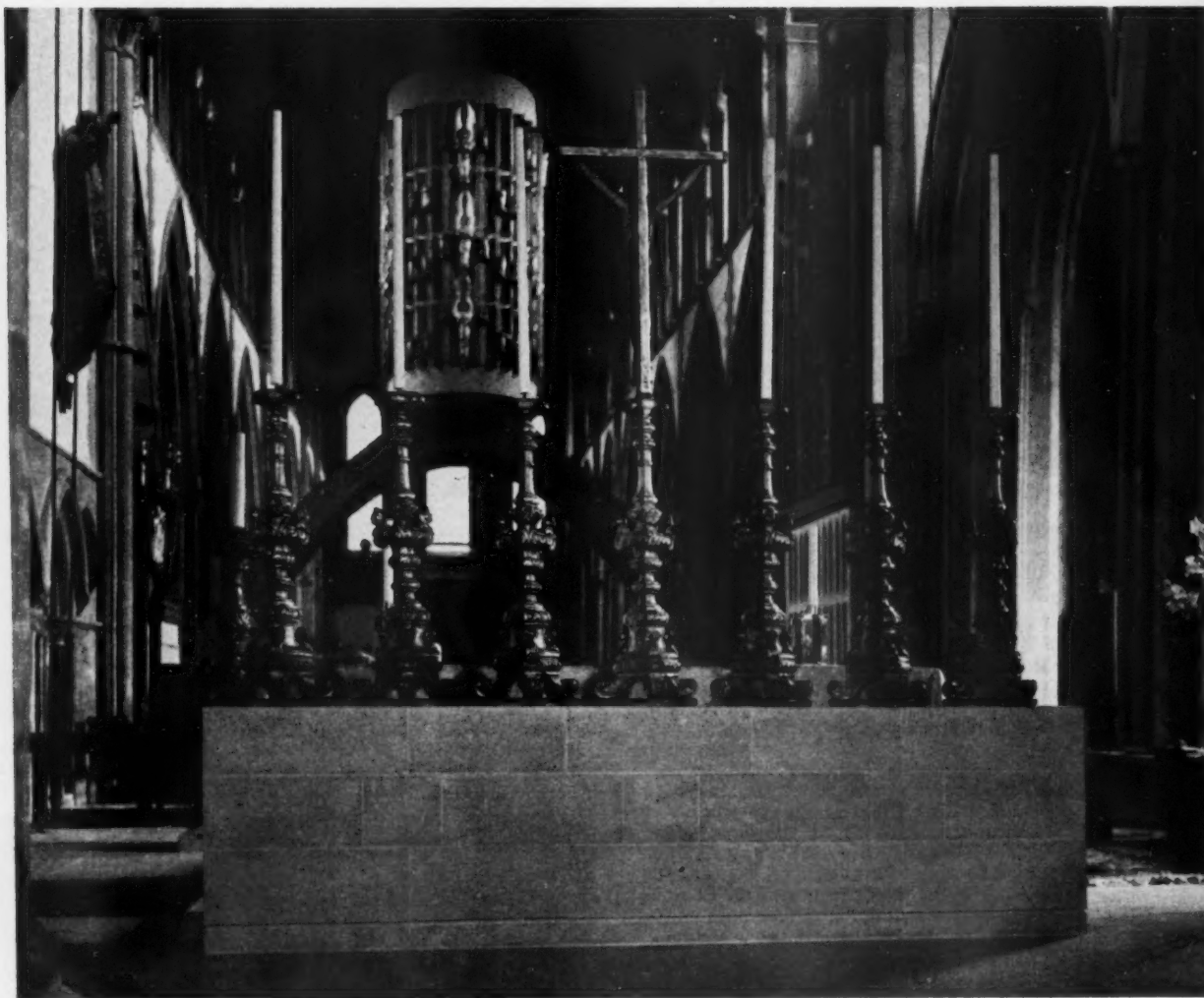
In medieval days Llandaff Cathedral had a pulpitum in the third bay Westwards from the entrance to the Presbytery. This pulpitum and the stalls existed at least to the date of Browne Willis' survey in the eighteenth century. When Prichard restored the Cathedral, he did not provide a pulpitum or any marked subdivision in the length of the Cathedral, except for the blocking of the lower part of the Bishop Urban arch by the reedos containing the Rossetti paintings. Thus, the interior was more like a large parish church than a Cathedral. The interior has now been designed as a Cathedral. In this the new Nave ceiling, the subordinate ceilings of the Aisles, the lowering of the Presbytery Arch, the Presbytery roof soaring far higher than any other roof, the unblocking of the Bishop Urban Arch, the revised floor levels and the view into the Lady Chapel all have their parts to play; but, by themselves, these would not produce a Cathedral atmosphere. On entering the Cathedral the eye must be prevented from seeing all at a glance. The way to the High Altar must be veiled, vista must open upon vista; from the moment of entry the journey to the High Altar should be by subtly designed stages. In producing these conditions a pulpitum has a great part to play. But in a Cathedral as small as Llandaff there are difficulties, since the whole must be used as a single unit; a Nave altar is impracticable. Thus, the Llandaff pulpitum has been evolved to satisfy the following factors: (1) To leave the West-East vista open at floor level, as the Cathedral is also used as a parish church. (2) To enable the Norman arch to be seen, and if possible suitably framed, when entering by the West door. (3) To provide a definite

*continued on page 596*



*Above, the Welch regiment chapel and restored cathedral. Below, a detail of the west wall of the chapel*





*Above, the interior looking west from the Lady Chapel. The pulpitum, the most important piece of new work in the Cathedral, may be seen spanning the nave at mid-distance. Extreme left, a detail of the altar rail in the presbytery. Left, Ambry in St. Dyfig chapel*



## Llandaff cathedral

*continued from page 594*

'block' in the West-East vista at a height of 25ft from the floor level. (4) The 'block' to be interesting in shape in itself and so designed as to heighten the spatial relationships of the interior. (5) For practical and acoustic reasons the 'block' to house the Echo Organ. (6) The 'block' to be a theological affirmation in the sense of medieval architectural design rather than a purely intellectual approach to architecture. (7) The whole of the modern equivalent of a pulpitum to be a vital work of art of today.

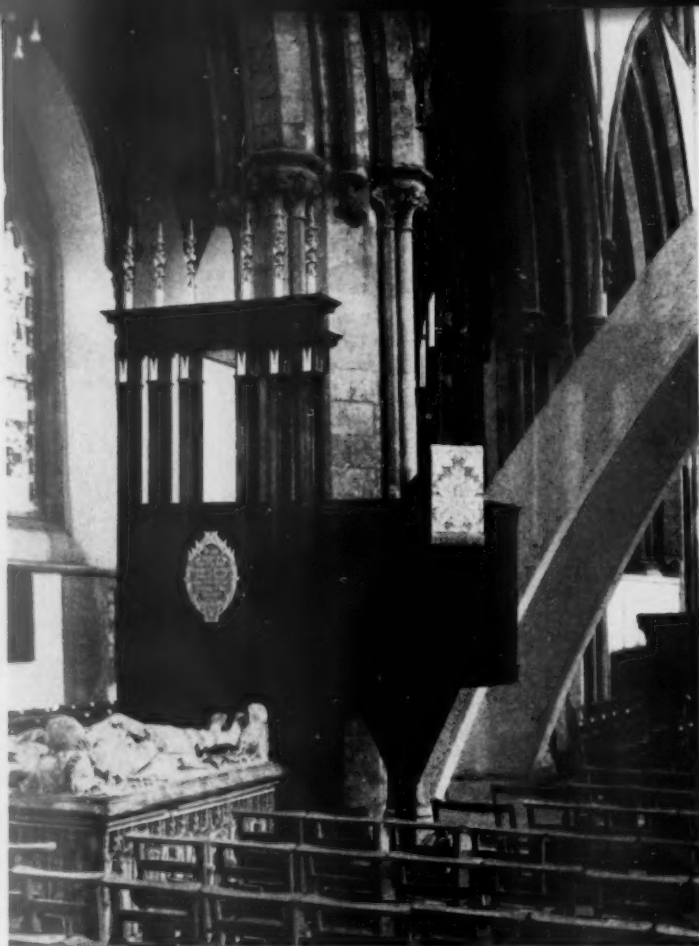
The solution was evolved after nearly four years of experiment, including the making of models and full size mock-ups in the Cathedral.

### Furniture and fittings

The furnishings in the Presbytery, that is all the furniture around the High Altar, has been completed. The two windows above the great Norman arch are included in this scheme. For these windows the Architect had, as his collaborators, John Piper and Patrick Reyntiens. The Bishop's Throne has been reconstructed from fragments which survived the war damage to the Cathedral. The organ cases and the organ console gallery have been completed. The Chapel to St. Illtud at the East end of the North Aisle of the Nave is almost finished and contains the fifteenth-century wood painted panel which once formed part of Bishop Marshall's Throne. The nineteenth-century lectern has been repaired and adapted and pewterized.

The final furnishing of the Lady Chapel, the reconstruction of the Choir Stalls, the restoration of the tombs and monuments and the permanent seating of the Nave, remain to be done.

Reinforced concrete calculations for the pulpitum were the work of the late Ove Arup, while the Cement and Concrete Association assisted with aggregate and colour research. Contractors for the whole restoration were William Clark of Llandaff and Hinkins and Frewin Ltd.

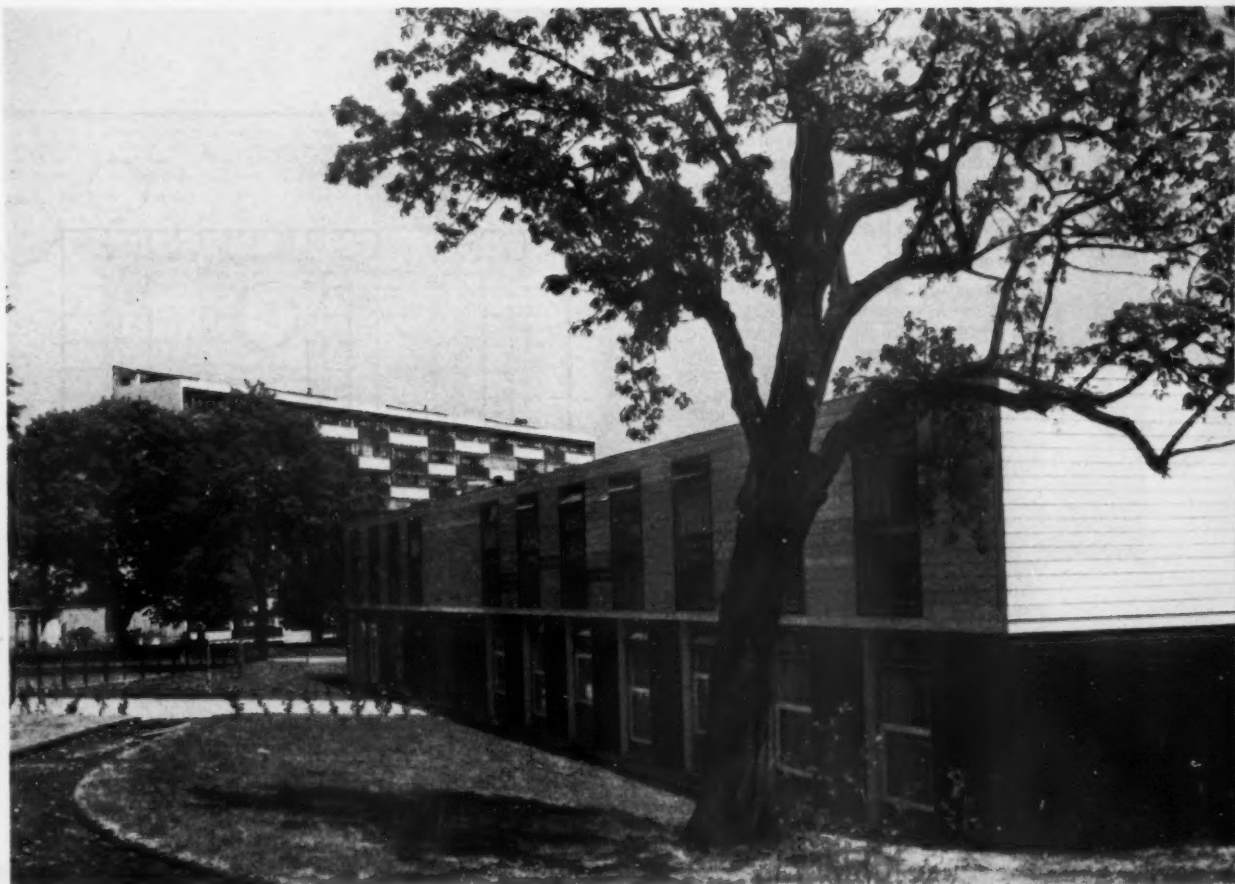


*Above, the pulpit erected in the memory of Dr. Morgan, the late Archbishop of Wales. Below, part of the pulpitum and organ covers. Below left, the west end of the processional way. Medieval heads were removed during restoration*





Photos: Central Office of Information and L.C.C. Architects Photographic Unit



## old people's home at Lambeth

Hubert Bennett, architect to the council; F. G. West, deputy architect to the council; David Jenkin, senior architect, general division; P. E. Jones, assistant architect; John Stedman, group leader; Beryl Higgins, Roger Leigh, Peter Buxton, assistants; Pease & Tanner, quantity surveyors; M. F. Rice, principal quantity surveyor, LCC; J. H. Humphreys, senior structural engineer, LCC, structural engineering consultant; Harding McDermott & Partners, heating and electrical consultant; L. A. Huddart, chief officer of the parks department, LCC, landscaping and garden works

*Special plan areas are set aside for handicrafts*

Two internal courts form the core of this home for the aged at Upper Tulse Hill, Lambeth, London. This type of planning enables inhabitants to view one court from another, and from sitting rooms to the rest of the site and roads beyond. One of the courts is predominantly paved, with climbing shrubs and a pergola at the perimeter, while the other court has lawns and an ornamental pool. Existing trees on the site have been retained.

Accommodation for 80 persons is provided in 26 single rooms, 15 double rooms and six rooms for four people. Sitting rooms are dispersed throughout the plan in small units, each having, with one exception, an open fireplace. There are also sitting spaces arranged off the ambulatory with views into the courts. Staff accommodation is in a self-contained two-storey block. This gives the staff some detachment when off duty, but at the same time provides ready access to the residents in cases of need.

*continued on page 598*



*continued from page 597*

Special attention was given to the problem of old people by providing easy-going staircases, continuous hand-rails to all circulation areas, and non-slip floor finishes. All bedrooms are fitted with night lights and call system.

#### Construction

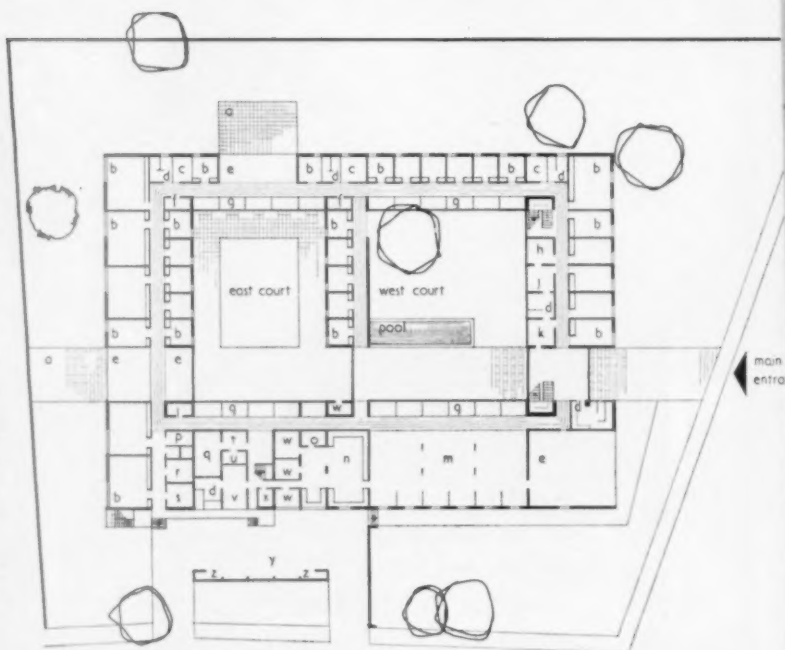
The structure is composite, predominantly with cross-walls tied at floor and roof levels with concrete ring beam. Steel has been used for the larger open spaces and load-bearing timber frames for the larger openings. Floors and roofs are timber joisted except for the large span of the dining room which is 'Trofdek'.

Contrast has been achieved externally by finishing the ground floor elevation in tarred brick panels with double-glazed timber frames to the sitting rooms, while the first floor is white painted weatherboarding. Internal elevations to the courts are in facing bricks with double glazing to sitting spaces. All the bedrooms have purpose-made sliding sash windows except those on the ground floor which have stable-type glazed doors.

#### Costs

Tender price £85,879.

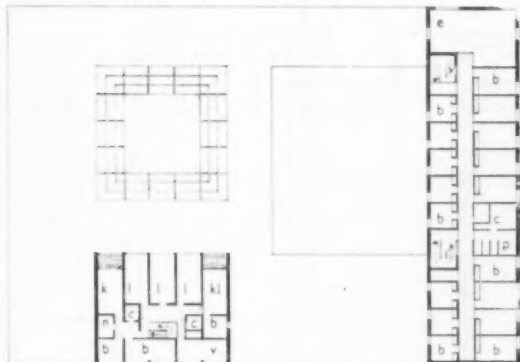
*The dining room*



▲ GROUND FLOOR SCALE: 1 IN = 64 FT



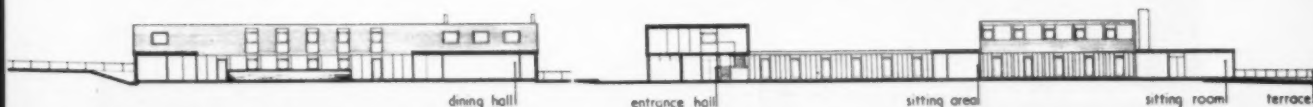
KEY: Ground and first floor plans: a. Terrace. b. Bedrooms. c. Baths. d. W.C.'s. e. Sitting Area. f. Cleaner. g. Alcoves. h. Waiting Area. i. Doctor. k. Matron. l. Nurses' Room. m. Dining Room. n. Kitchen. o. Larder. p. Utility. q. Boxroom. r. Clean Linen Room. s. Foul Linen. t. Laundry. u. Intake. v. Staff Dining. w. Stores. x. Fuel. y. Service Yard. z. Refuse.



▲ FIRST FLOOR



Screens break up the space round two sides of the courts to form lounge recesses



▲ SECTION THROUGH DINING HALL

▲ SECTION THROUGH ENTRANCE HALL

Main entrance hall, west court beyond







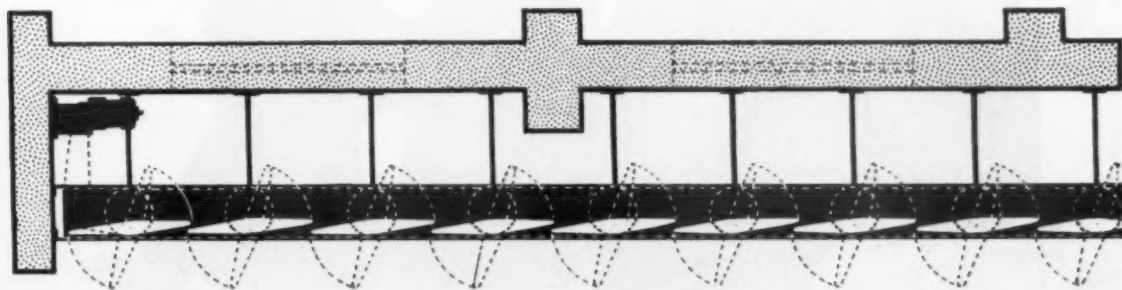
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# old people's home, Lewisham

The Architect & Building News, 9 November 1960 601

Photos: LCC Architect's Department Photographic Section

**Client :** London County Council Welfare Committee; Hubert Bennett, architect to the council, F. G. West, deputy architect to the council, D. C. H. Jenkin, senior architect, general division, P. E. Jones, assistant architect, general division, H. C. V. Brown, architect-in-charge, T. Stenhouse, assistant : architects ; L. A. Francis & Sons : quantity surveyors ; M. F. Rice, principal quantity surveyor, LCC ; J. Rawlinson, chief engineer, LCC : heating and electrical consultant : L. A. Huddart, chief officer, LCC parks department : landscaping and garden works.

IN contrast to Roupell Court, Castlebar home for the aged is housed in a Victorian building which, although well built in 1878, had a gaunt and forbidding aspect, an impression not dispelled within the building. Over-shadowing by trees, poor lighting and sombre decoration all helped to give it a gloomy atmosphere. The aim, therefore, was to provide a homely and intimate atmosphere for old people while retaining the period character of the house.

## Planning

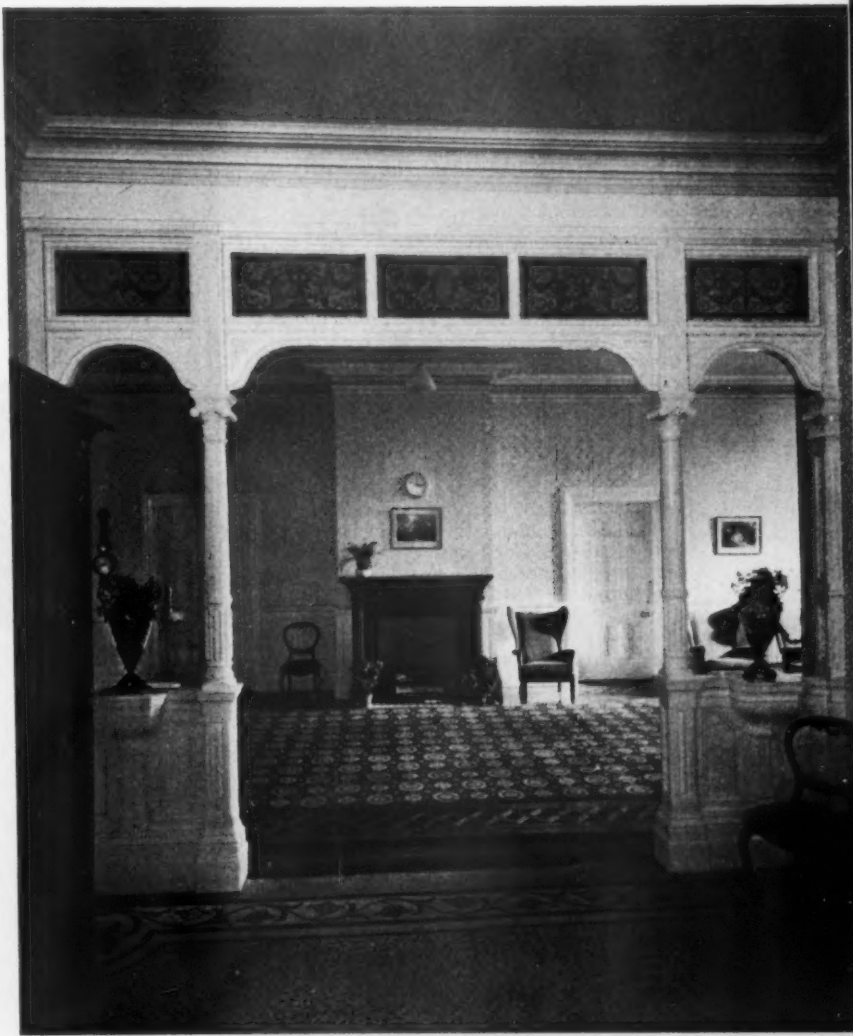
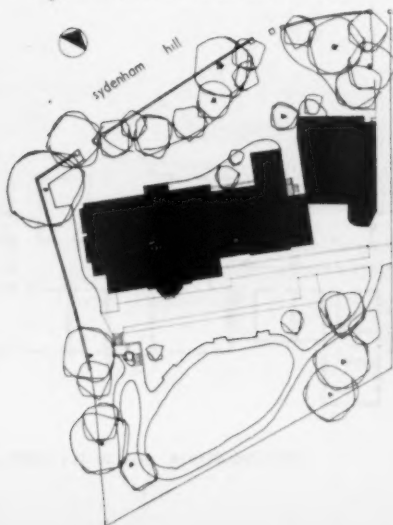
Castlebar is sited on one of the highest points in London and this advantage has been exploited to the full. Trees and shrubberies have been thinned out and many of the rooms now command views over London and Kent. Seclusion and shelter can be obtained in the garden at a lower level.

The concept was to house 68 old people and five resident staff. Replanning and structural problems involved included the provision of a chair lift.

Interior design consists of a judicious mixture of modern and old furniture, new lighting and an integrated colour treatment to decoration, fabrics and furnishings.

*continued on page 602*

▼ SITE PLAN SCALE : 1 IN = 112 FT



*Castlebar old people's home is a converted Victorian building in which the aim has been to give a homely atmosphere while retaining the period character of the house*



*continued from page 601***Services**

Bedrooms are generally lit by a central lighting point, switched at the door, but in addition there is a swivel arm bracket fitting over each bed and this is controlled from beside the bed. A 15W night light in each bedroom is controlled from the door. The corridors, in addition to general lighting, have a night lighting circuit switched separately and adjustable in level of illumination.

Three oil-fired boilers serve a central heating system with cast iron radiators and provide a hot-water supply through 300gal hot-water storage calorifiers. The oil-burning system is fully automatic, the amount of heat to the building being controlled by a thermostat sited in the open air. In order to exercise strict economy over fuel consumption, the heating is controlled by a time clock for day and night temperature setting.

The electric fire-alarm system consists of an indicator board with break glass pushes operating electric bells throughout the building.

**Costs**

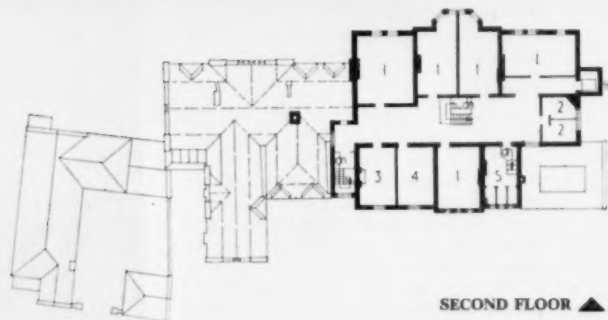
Total cost of job £45,983.

*One of the sitting rooms*

General Contractor: W. J. MARSTON AND SONS LTD.



*Dining room and one of the dormitories.  
Interior design consists of a judicious  
mixture of the old and new*



SECOND FLOOR ▲



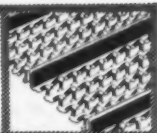
FIRST FLOOR ▲



GROUND FLOOR SCALE: 1IN=48FT ▲

- KEY:**  
Ground floor:  
1. Sitting room.  
2. Garden chair store.  
3. Prep and wash up.  
4. Kitchen.  
5. Dining.  
6. Chair lift.  
7. Oil fuel.  
8. Veg. store.  
9. Larder.  
10. Utility.  
11. Office.  
12. Hall.  
13. Lavatory.  
14. Bathroom and W.C.'s.  
15. Dormitory.  
16. Dry store.  
17. Domestic staff sitting room.  
18. Store.  
19. L.E.B. transformer.  
First and second floors:  
1. Dormitory.  
2. Bathroom.  
3. Staff bed-rooms.  
4. Linen.  
5. Lavatory.  
6. Loft.  
7. Staff W.C.  
8. Staff kitchen.  
9. Staff bathroom.  
10. Store.  
11. Matron's kitchen.  
12. M.I. room.  
13. H.M.C.  
14. Bedroom.  
15. Matron's sitting room.  
16. Chair lift.

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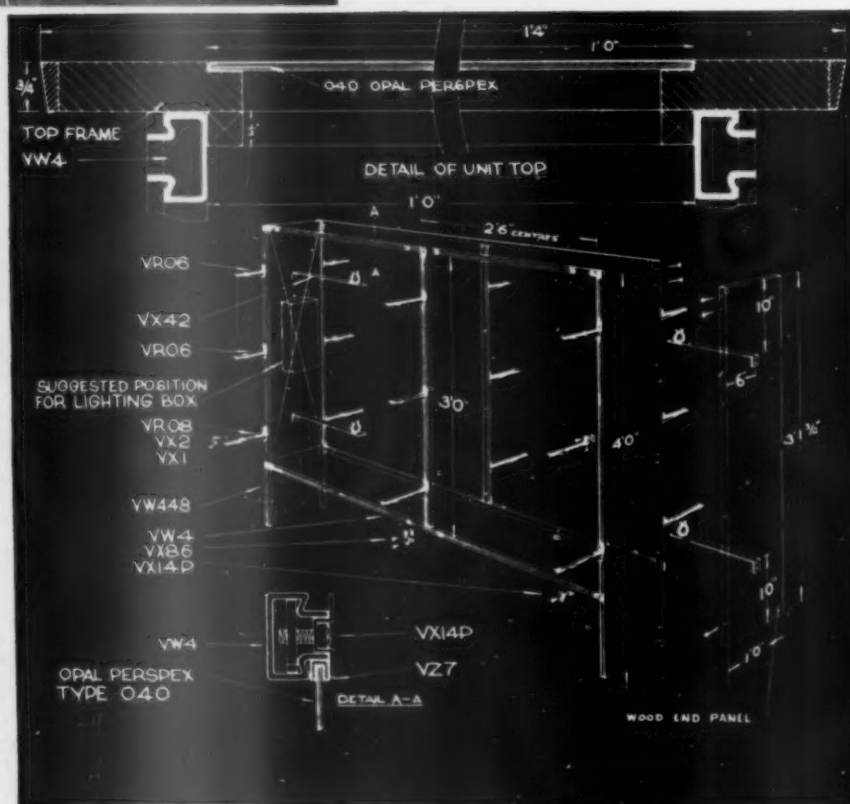
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## OFFICIAL PUBLICATIONS

- **Mobile Tower Cranes for 2 and 3 storey Building.** BRS National Building Studies Special Report No. 31. HMSO. Price 4s 6d, plus postage.

The use of cranes for the smaller buildings has not been adopted so generally as with taller buildings. This study describes the types of tower crane and equipment available and gives indications of the operations they can perform and costs. Plant standing idle is plant misapplied so the study gives recommendations on the planning operations necessary to ensure that the maximum effective use is made of cranes, by the arrangement of batches of materials of the right size within working radius and by locating the cranes for maximum usefulness on the site. Cranes have to lift a variety of goods and these will require to be phased to suit trades. One analysis gives, for one hour's work by the crane, the following: Bricks 3.5 tons, Mortar 1.7 tons, Lintels, Frames and Sundries 0.8 tons, making 6 tons in all every hour. Whether this allowance is correct depends again on the fixing rate, in that the bricklaying gang must be able to lay the number of bricks raised or double handling will be necessary. Diagrams indicate how the crane may be placed either statically or on a track. A comparison on very similar contracts is quoted, in which a crane was used on one job and a block and derrick on the other. The man-hours when the crane was used amounted to 2,954 for a unit of one maisonette and shop and man-hours of 3,310 on the second job relying on block and derrick. A number of examples are quoted.

- **BRS Digest No. 136.** Index to Nos. 1-135.  
**BRS Digest No. 2.** Questions and Answers. HMSO. Price 4d each.

BRS Digest No. 136 completes the series in that size of pamphlet. To describe it as the first series seems odd in that the previous series was yet another size.

BRS Digest No. 2 is described nevertheless as Second Series and all are now to be A4 size. Another very useful innovation, particularly as regards Questions and Answers, is that all subjects referred to are given the SfB classification. The Digest now noticed refers to four subjects but, by being printed on two sides, the single page publication cannot be cut to enable the Answers to be filed with the subjects of the SfB classification.

The first subject is that hardy annual—the sound-proof movable partition. One design giving 25dB for single thickness or 38dB for double thickness with separation of 8in to 12in has been prepared by the BRS in conjunction with the Ministry of Education, as schools invariably find a need for this kind of movable wall. Details are obtainable from The Building Centre, Store Street, London, W.C.1. These values are of course less than for a 4½in brick partition. The Digest stresses the need for weight in the partition panels and for thorough sealing of all edges. Any air passage is a sound passage. Rubber or similar compressible beads are needed at all joints but the problem of the gaps at top and bottom may be insoluble unless removable flaps and thresholds are provided.

Another question was on the repair of an old stone wall with new stone, where decay was occurring from rising damp and salt action. Should the new stone be protected by bituminous paint on concealed faces? The answer was that if the repair represented a small part of the wall some such treatment might have beneficial effect but if large it would be difficult to decide on the action to be taken. As no damp-proof course could be inserted, continuation of decay must be expected. Possibly the inference is that if the new stone is protected by bituminous paint there may be greater saturation and consequent decay of the old stone. If the new stone is coated on bedding faces with bituminous paint this should be well sanded for key before the paint hardens.

The third point raises a difficulty which needs clearing up: when lime-cement-sand mortars are specified is the lime to

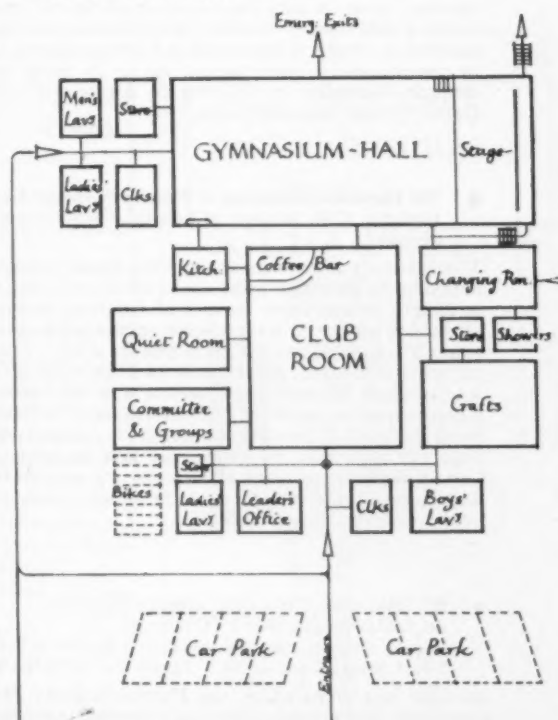
be in powder or putty form? BRS Digest No. 126 (former or 1st series) was noticed in Information Digest of March 16, 1960, and gives the answer quite clearly as referring to lime as putty only, because the lime hydrate ought to be slaked for 24 hours before use. Another point is that lime weighs less than cement so proportions may go awry. A quotation from CP 221 is made as regards external renderings that 'Equal volumes of lime putty and dry hydrated lime can be regarded as containing the same amount of lime'. The Digest points out that it is the *effect* of the lime rather than the quantity that is important to bricklayer or plasterer—the 'fattiness' as it is known. Dry hydrate of 1½ volumes is needed to give the effect of one volume of putty run from quicklime and approximately the same of putty from hydrated lime but the latter is in fact the heavier in lime. Quoting BRS Digest 126 again, it is pointed out that *up to* 1½ volumes of dry hydrate may be used in lieu of one volume of putty, according to the condition of the sand.

The last question is for guidance on filling in an unused fireplace opening. The BRS recommend that the flue be swept, that vents be left at top and bottom of flue if the chimney is not to be demolished and that the fireplace opening be covered with a removable sheet material so as to allow for removal of rubble which will probably fall down the chimney. Birds also fall down chimneys but this is not mentioned although having bearing on the method suggested of capping off the top of the chimney with a half-round ridge tile. This provides two attractive roosting places for birds. Some means should be adopted to prevent rain entering the flue and to ventilate it so as to enable the chimney to dry out after rain. Open perpend are not suggested.

- **Building Boys' Clubs.** National Association of Boys' Clubs, 17 Bedford Square, London, W.C.1.

The grants recently announced for the building of Clubs makes this a most timely issue. No price is stated but by the form of reproduction used it must be presumed that it will be available in the main to committees contemplating a constructional

Block diagram for a Boys' Club



project. The first paragraph puts one right off by using that overworked phrase 'know how'—the clever pseudo-Americanism that is bad enough when spoken—when 'procedure' would have been more acceptable.

The booklet deals only with new buildings—not with old buildings or alterations or additions and is addressed to those who will be responsible for setting up a Club committee, having the premises built and running it. The initiative may come from the Federation or County Association of Boys' Clubs. In addition to appointing committee members primarily interested in Boys' Clubs, professional and technical members, not necessarily full members, are likely to be appointed. The booklet then outlines methods of obtaining voluntary funds and grants, the latter obtainable from the Ministry of Education, the Local Authority and New Town Corporations. Industrial concerns will also, in many cases, make gifts. Running costs are then estimated, based on the number of members.

Advice on a suitable site should be sought from the Planning Authority and estate agents—not, apparently, architects at this stage. Outline Planning Application is then to be made in writing without drawings: probably this is too vague, for this statement is followed by a reference to building drawings. An architect then approves the site: as it is only later on that the Committee decides the size of the premises the architect is taking a risk. A key plan to the number and types of rooms needed follows. The architect's fees are then stated but not the scale applying since October 1, 1960.

Advice is also given on 'self-build' work with the co-operation of architects and builders.

- **The Strength Properties of Timber.** Forest Products Research Bulletin No. 45. HMSO. Price 3s 6d, plus postage.

Except for the specialist, this Bulletin will not have considerable interest or application. It supersedes Bulletins Nos. 28 and 34 but mainly to give further and revised data on testing and tests carried out and relating only to strength; but in Table I an interesting comparison is made, not only of a number of hardwoods and softwoods but also of the effect of green and air-dried conditions. Scots Pine, for instance, had a fibre strength at maximum loading in the green state of 6,000lb/sq in while it increased to 12,000lb/sq in in the air-dried state—a very important result to be observed if building in a forestry district. This proportionate increase is matched in other softwoods and in European Beech. Increases in compressive strength appear up to  $2\frac{1}{2}$  times the green strength. Resistance to splitting on drying was reduced in Grand Fir and Japanese Larch.

- **The Factories (Cleanliness of Walls and Ceilings) Order 1960.** 1960 No. 1794. Ministry of Labour. HMSO. Price 3d, plus postage.

This Statutory Instrument changes the regulations previously obtaining by allowing a wider choice of materials and methods in factory redecoration. Instead of requiring decoration by oil paint at least once in every seven years it is now permissible to apply 'a suitable paint' so as to give the whole of the treated surface a continuous film capable of being washed or otherwise cleaned. Whereas previously it was only necessary to redecorate at the set period it is now necessary to paint within the seven years if the surfaces need it. It is also evident that materials other than oil paints may now be used officially. Certain factories or parts of factories are exempt from the Regulations being mainly those in which steam and dust would make decoration ineffective.

- **BS 3260: 1960.** PVC (vinyl) asbestos floor tiles.  
**BS 3261: 1960.** Flexible PVC flooring.  
Price 4s 6d each, plus postage. British Standards Institution, 2 Park Street, London, W.1. Telephone: MAYfair 9000.

BS 3260 was prepared by the Plastics Industry Standards Committee and products claiming to comply are required to

bear the kite sign. Tests of materials, colour, colour fastness, dimensions, finish and resistance to greases and oils are specified. Tests allow for heating to 100 deg C, with maximum dimensional gain at 80 deg C laid down, also maximum loss of volatile material.

BS 3261 contains very similar requirements and is also concerned to ensure flexibility of the material, evidently in sheet form. Both specifications refer to smooth-faced floorings.

#### TRADE ASSOCIATION PUBLICATIONS

- **Casting Concrete Against Thermoplastic Sheeting.** Advisory Note No. 5. Cement and Concrete Association, 52 Grosvenor Gardens, London, S.W.1.

Abrasion of shuttering timber is avoided by the use of plastics facings of P.V.C. and polystyrene but, in addition, much superior finishes can be obtained on fairface concrete. Such sheeting can be used for both *in situ* and pre-cast work, in flexible sheet, roll or moulded form. The heavier weights are available in sheets while the thinner—normally below 30/1,000in—is available in rolls up to 75yds in length. For *in situ* work, it is usual to screw down the heavier sheets and to stick the thinner but sticking can also be done with the former. The type of adhesive is not named but clearly ought to be one permitting stripping from the formwork. Shuttering timber must have a good prepared face or be of plywood. Moulded sheets can be made by vacuum drawing up to 6ft x 4ft from wood, rubber, metal or plaster moulds.

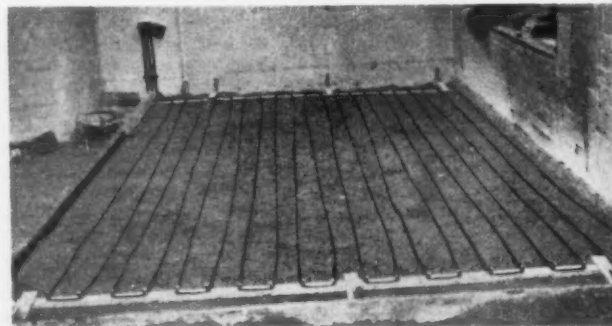
In placing concrete, care must be taken to avoid damage to the plastics linings which give a slight gloss to the concrete. A fine face can be ensured by extracting from the mixed concrete some of the sand and cement in the proportions used in the concrete and facing the moulds with this to at least 3/16in thickness before pouring the core concrete.

Removal of the plastics sheeting from concrete presents no difficulty and the surface should be well washed and rinsed before re-use. Any mortar adhering at edges can usually be broken off by flexing the sheets.

- **Construction and Finish of Floors Electrically Warmed.** Electrical Development Association, 2 Savoy Hill, London, W.C.2.

The systems of electric floor warming available are described briefly followed by General Requirements, among which is a reminder that pipes (for other services) should not run above or below electric heating runs although they may run between.

*A panel of plastic-covered heating cable laid out by the 'batten and nail' method; the battens at each end are removed just before concreting is completed. The size of the bay has been arranged so that it can be wired and completed while the bottom concrete remains 'green', giving a monolithic floor*





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<b>SMALL ANTHRACITE</b> In gravity feed boiler	12/6d per cwt	—	14/8d
<b>GAS</b>	1/4d therm plus, say, 2/8d a week standing charge	16/1d	23/6d
<b>ELECTRICITY</b>	1d unit (No standing charge included)	18/2d	29/10d
<b>OIL</b>	1/5½d gallon	*13/-	*23/-
* plus 2/- to 6/- a week maintenance cost.			

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Other electric cables must also be kept away. The constructional engineer's approval should be obtained before heating elements are brought into close proximity to steel reinforcement.

Points to be watched with embedded systems are that no damage occurs during laying of cables and of screed, that cable fracture may result from slab shrinkage or differential movement and that corrosion of cable may result from damp conditions. Lightweight concrete screeds should not be used unless the heating scheme has been designed for this kind of topping. Precision and handy ways of spacing cables are described.

Another section deals with thermal insulation, noting that damp ground conditions will cause heat leakage unless insulation is built-in. Perimeter insulation should be between 2ft and 3ft wide, brought up from below screed at edges to floor finish level. The minimum thickness of screed material with K factor of 0.30 recommended is 1in. Non-compressible material is necessary, a list being given. Detail drawings show alternative arrangements of insulation. In view of the current habit of placing resin-bonded fibre glass in external cavity walls it is of interest to learn that, because of moisture absorption of the fibre glass, its effectiveness as insulating material was reduced by half. A distinction is made between sound and thermal insulating materials as used in the suspended floors of flats. The sound-absorbing mat placed under the screed is softer than the recommended thermal insulation material so compresses and in itself is inadequate for the prevention of heat transmission to below. It is recommended in such cases that another layer of thermal insulation material be fixed below the ceiling.

Sections on 'layered' (i.e. where screeds are laid on cured concrete slabs) and monolithic floors and on Floor Finishes make up the rest of a useful guide.

- **Building By Direct Labour. A Critical Analysis.** I. Ernest Jones, MA, BSC. Federated Employers Press Ltd., 82 New Cavendish Street, London, W.1. Price 6s, plus postage.

In principle direct labour building is beneficial to a community in two ways, one being the saving in money through no profit addition being necessary and the other in the dedication of the staffs to the public weal. In fact, however, Mr. Jones shows how far astray these aspirations may go. There is certainly no profit motive but this acts two ways, one being that there is also no adequate check on what is a proper cost and the other is that the 'perks' and bonuses of normal contracting are not available. The reduced opportunities for advancement and personal gain through public service discourage entry in the staffs of the most energetic types, hence many organizations are hampered all the way through by ineptitude and inexperience. Some striking instances of the devices adopted to try to show that estimate costs are not being exceeded are quoted in this book, together with some rather unsavoury goings-on in well-known authorities' offices where the vigilance of the Treasurer's departments have brought matters to a head.

It is not at all clear to whom this book is addressed unless it is to councillors. Those in the building trade and in the professions generally are somewhat doubtful about direct labour costs whether applied to buildings or professional services. In Chapter Nine practical points for local action by 'public-minded citizens' are given, which include checking costs of work by bringing in independent quantity surveyors.

Any requiring ammunition to fire against those in favour of direct labour schemes will find a useful arsenal in this book.

- **Code of Practice and Manual for Light-Weight Metal Fixing Systems.** The Metal Fixing Association for Building Insulation, 32 Queen Anne Street, London, W.1. Telephone: LAngham 7616.

This is the fifth edition of this work which has detailed sections on materials, design, industrial linings, suspended ceilings, work on site and tendering. There is also a section, taken from BRS data, on heat loss through light-sheeted structures and

another on Noise Control by C. W. Glover, MICE, MISTRUCTE.

The Code describes metal sections, cross noggings, holding down clips, trims, anti-corrosion protection, aluminium alloy sections and accessories and plaster finish. Design considerations are Layout, Lighting, Services, and Panel Sizes. A table giving maximum sizes of unsupported rectangles is shown on page 7, for  $\frac{1}{2}$ in fibreboard,  $\frac{1}{2}$ in fibreboard,  $\frac{1}{2}$ in plastic-faced plasterboard,  $\frac{1}{2}$ in insulating plasterboard,  $\frac{1}{2}$ in,  $\frac{1}{2}$ in and  $\frac{1}{2}$ in asbestos insulating board, when applied to industrial roofs, suspended ceilings with exposed metal and ceilings with concealed metal. The effect of humidity on unsupported panel sizes is referred to. Detail drawings show five ways of insulating sheeted industrial roofs.

In Work on Site, the normal recommendations are given, including decoration where in the case of concealed fixing suspended ceilings a palette knife should be run in the joints between the boards to break the decoration to prevent tearing. There is no reference to the use of PVA emulsions in contact with aluminium.

- **The Use of Welding in Steel Building Structures.** British Constructional Steelwork Association, 94/98 Petty France, London, S.W.1. Price 3s 6d.

Another revision to bring practice into line with the revised BS 449 : 1959 has been prepared by G. Bernard Godfrey, AMICE, AMISTRUCTE. It deals with fillet and butt welds, designs of welded plate girder, plate crane girder and built-up stanchions, together with notes on the practicability of welding and drawing office procedure. In this publication also all necessary tables and calculations for the selected examples are given.

- **Examples of Structural Steel Design to BS 449 : 1959.** British Constructional Steelwork Association, 94/98 Petty France, London, S.W.1. Price 3s 6d.

Revisions to the former issue have been made by Lewis E. Kent, BSC, MICE, MISTRUCTE, and E. G. Lovejoy, AMICE, AMISTRUCTE. One further change is expected as the Introduction points out that while wind pressures are based on CP3 (Chapter V) 1952 this Code is at present under review, so will probably have effect on later design.

Two building forms of single storey are examined, one being a shed 50ft by 150ft, the other 150ft by 150ft in three spans, both 16ft to eaves. Dead load, snow load, wind pressure, etc.—in fact all the usual stresses—are detailed and every part of each of the two buildings is examined in detail with all stress diagrams and calculations given. Tables give values for bolts in tension and angles as simply supported beams. This should be an invaluable reference book to the latest practice in design.

#### TRADE PUBLICATIONS

- **Forget the Weather.** The Rheostatic Company Ltd., Slough, Bucks.

Controls for central heating systems are increasing in range and application and the Satchwell temperature controls now include a device which was noted as being necessary for true heating economy some years back in BRS studies. This booklet is not technical in the sense that it can only be understood by a specialist: it seems to be intended for an intelligent house owner. After a general review of warming systems and appliances, the booklet stresses the need for Automatic Control if heat is not to be wasted or not available when needed because of the wide and unpredictable changes in weather and temperature.

In Small-bore Central Heating the Satchwell B.M.T. automatic controller consists of an external 'detector' linked to a mixer controller on the heating circuit which is



fitted in the normal by-pass. The detector is about 10½ in x 3 in x 2 in, the complete Controller costing £20 5s. The internal arrangement is shown in a photograph in which a fine-bore copper tube is connected on the heating return before the pump with the controller on the by-pass and flow, the Controller itself being connected by a similar pipe with the detector. This is obviously a device which should be known widely as it takes over control from the unreliable human element as was noted in the references to heating in schools in the previous Information Digest. One more stage which must be reached, however, before it can be accepted with unalloyed delight is the arrangement of fine-bore copper tube: the illustration shows this coiled for flexibility in a 5 in loop then snaking up to the controller like the stem of bindweed in the unkempt garden. A difficult problem, no doubt, but not incapable of solution if architects and heating engineers insist. The arrangement shown is vulnerable to damage in casual cleaning and shows that an industrial designer has not yet been invited to tidy up this otherwise welcome device.

- **Heating and Air Treatment Engineering: Technical Data.** Brightside Heating and Engineering Co. Ltd., G.P.O. Box 118, Sheffield 1.

While primarily of value to heating engineers this book has a number of items of interest to architects and builders. It consists largely of tables giving performances but in addition gives heat transfer co-efficients for roofs and walls, natural air-change rates (relating perimeter of building to contained volume), and approximate heat requirements of buildings from single-storey offices through two-, three- and four-storey office blocks, at comfort temperatures of 60 deg F and 65 deg F. The economics of building insulation are approximated to show the savings on fuel resulting from reducing the loss through a factory roof by 1.08 B.Th.U./sq ft/deg F/hr. Comparable running costs are also given. A useful guide to boilerhouse sizes appears on pp. 18 and 19 while chimney dimensions related to boiler B.Th.U. are given on p. 20. Emissivities of materials include dark and light paint in which, between 0 deg-250 deg F the light colour has no effect although showing a marked restriction at 1,000 deg F. There is also a guide to domestic hot-water requirements, on p. 25. The sizes of ventilating ducts proposed by engineers often cause difficulty to architects in accommodating the sizes within the structure, when it appears that a change in section would help: a Table on p. 29 gives equivalents. On Plenum plants it is not so easy to give data as so many factors have to be considered but a plan is given of a typical plenum chamber with a table of recommended dimensions suitable for buildings ranging from 15,000 to 450,000 cu ft.

- **Met-Ram Structural Steel System.** Booth & Co. (Steel Structures) Ltd., Vincent House, Dorking, Surrey.

Perforated metal sections are now commonplace so the features which lie behind this system must have special merit to justify its introduction.

It claims to comply with the draft addendum to BS 449 relating to cold-rolled sections, to be approved and specified by local and other authorities and to conform to the standards of calculation by the structural engineering profession. It is made from high-tensile steel in angles, channels, 'zed' sections and strips. There are seven forms: the Omega strip has central holes of two diameters alternating, for use in reinforcing and triangulating where tensile strength is needed. The Omega angle is similarly perforated for similar uses. The Gamma strip and angle resemble the Omega range but have closer perforations, the Beta angle has two rows of perforations, one of twice the spacing of the other, the Alpha angle has three rows, the third at twice the wider spacing in Beta while in Sigma channel the perforations are similar to Alpha but in two lines of equal spacing. The point about these arrangements of perforations is that they allow of rigid triangulation of framing

and building up of space frames with very considerable freedom of design. Erection can be done by unskilled labour, the sections are light in weight and protected by epoxy resin paint, so avoiding painting after erection.

- **Polysulphide Sealants.** J. M. Steel & Co. Ltd., 51 South King Street, Manchester 2.

Two meetings were arranged by the publishers to discuss the types and uses of mastic sealers in June of this year. Speakers listed the problems presented by heat, cold, dampness, thermal movement and sunlight on building materials. Current design relies on resilient joining materials and these have been tested extensively for at least the past 20 years. Some have failed, some have been unreliable. Polysulphide sealants appear to have longer life than any other, in the opinion of some of the speakers but the higher cost may discourage their use. This is a matter of simple economics: either use an unreliable sealant which may have to be renewed at relatively short intervals—if accessible—or use a reliable sealant with confidence. Thiokol sealants are in tan, grey, black and aluminium colours and consist of two parts, mixed immediately prior to use. An electric mixer is recommended although hand mixing is possible. The working 'life' is from two to four hours at 75 deg F. Expansion can be allowed up to 50 per cent and the sealant adheres to a wide range of materials. Tuolene is used to clean the pointing gun.

This material has been in use for seven years in the UK, largely, but not exclusively, on curtain wall façades.

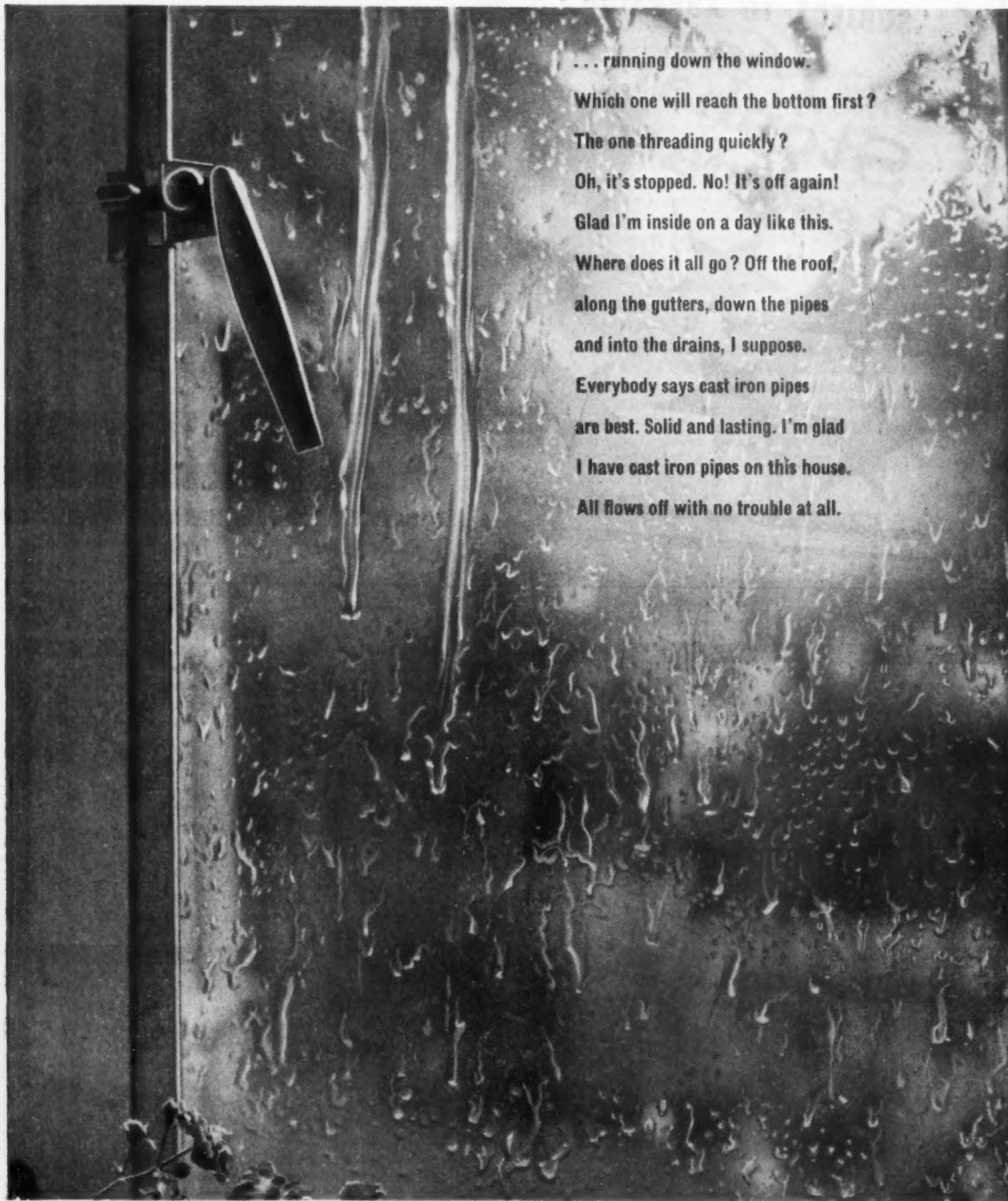
- **Propylex Polypropylene Sheeting.** Plastics Division, British Celanese Ltd., Celanese House, Hanover Square, London, W.1. Telephone: MAYfair 8000.

This material formed the subject of an exhibition to demonstrate its wide applications. It has a high softening point, permitting sterilization and welding. It is light in weight, with specific gravity of 0.91, yet has good mechanical

*A Domestic water tank made from Propylex, a tough, long-wearing and rustproof polypropylene sheeting*



## WATCH THOSE TWO...



... running down the window.

Which one will reach the bottom first?

The one threading quickly?

Oh, it's stopped. No! It's off again!

Glad I'm inside on a day like this.

Where does it all go? Off the roof,

along the gutters, down the pipes

and into the drains, I suppose.

Everybody says cast iron pipes

are best. Solid and lasting. I'm glad

I have cast iron pipes on this house.

All flows off with no trouble at all.



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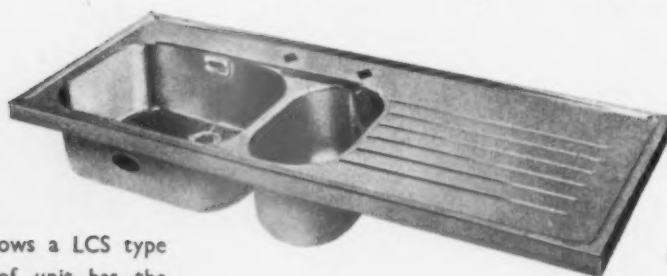
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properties. Dimensional stability and resistance to stress cracking are two further qualities. Thicknesses available are from 0.01in to 0.18in in sheets up to 8ft x 4ft, black, white or natural colour.

Applications of interest in building are as damp-proof course, welded-up cisterns and tanks, sinks, basins, ducting, etc. No special skills or techniques are required in welding or working other than those normal to plastics.

- **Oilraulic Lifts.** Hammond & Champness Ltd., Gnome House, Blackhorse Lane, London, E.17. Telephone: LARKSwood 1071.

The common misnomer of 'hydraulic' as applied to motor vehicles is sufficiently understood to mean operation by oil pressure that the need to coin a new word, especially one so awkward to pronounce, is unfortunate but as the old water-operated lifts are now under a cloud the makers have been driven to adopt it as being immediately understandable. Nevertheless 'Oil-power' might have been better.

Such arguments apart, this development is extraordinarily interesting. As operation is by ram from the well, no counterweight to the car is needed and all gear is at the base, saving the heavy loading of machinery on top, which in itself adds so much to the cost of lifts. The power unit need not be adjacent to the lift well and the equipment is much quieter than the conventional lift. There is some sacrifice of speed, for 125 f.p.m. is the maximum available but this is enough for low buildings and for goods use. No attendant is needed, the usual equipment being fitted to the cars, including automatic levelling.

The 'oilraulic' lift has been proved in use over a period of 25 years. There is virtually no restriction on car size, up to 26 persons being quoted in the data on installations. For goods use up to 20,000lb load is quoted where the speed is recommended to be 45 f.p.m. Lift well size is less than for electric lifts as no counterweight and guides are required while the usual well is needed at the base. The only new problem is provision in the well for housing the telescoping ram which has to be of a depth equal to the height of travel plus 3ft. This can be bored and cased in steel and concrete. The height above top landing level should be 12ft minimum, with an allowance of only 6in to 10in for over-travel.

- **The Importance of Flue Gas Tests on Heating Installations.** Gerald C. Pearce, MIMM. Henry Wilson & Co. Ltd., 86 Bold Street, Liverpool.

The efficiency of the combustion appliance can be determined by testing the flue gases and in his paper Mr. Pearce, who is Chairman of Henry Wilson Ltd., says that a testing kit is as essential to a heating engineer as a black bag to a doctor. Combustible matter not used is indicative of faulty ignition and can be detected in the flue gases. Excess air is detectable too and must be stopped as it cools the flame temperature. Only sufficient air to ensure good burning and good exhaust up the flue can be allowed.

The standard test kit consists of a Smoke Tester, Thermometer, CO<sub>2</sub> indicator and a Draught Gauge. The Smoke Tester includes a slip of paper through which smoke is drawn. The dark patch resulting is compared with a standard range of shades. If darker than No. 4, adjustment is needed to ensure better burning. The thermometer is graduated to 1,000 deg F. The CO<sub>2</sub> indicator is available in a number of forms. The Draught Gauge is only used when no fault can be traced by the other instruments and proves whether the chimney is effective or not.

Cases mentioned include raising boiler efficiency from 60 per cent to 75 per cent by reducing excess air. Another showed that by increasing excess air the smoke became darker, hence no more air was needed at the burner. Inefficiency proved to be due to air leakage in the boiler. In another, the high flue temperature showed simply that the boiler was too small for the load.

The paper ends with the remark that all oil-fired boilers must be provided, as the Wilson boiler is, with facilities for

using a Smoke Test kit, for without these it is impossible to prove that the apparatus is performing as the makers claim it should.

- **The Famclad System.** F.A. (Membranes) Ltd., St. Helens, Lancashire.

Protection from dampness of insulated pipes being so important to the conservation of heat, this method described in a folder should prove helpful. It is simply a matter of wrapping the insulated pipe with plastic sheet, longitudinally and circumferentially, the laps being sealed with a cold welding agent, then wrapping the pipes with wire reinforced bituminous felt which has all joints sealed with hot bitumen. The plastic sheet is polyisobutylene which has very good elasticity to allow for expansion of the pipes. An arrangement is available for expansion sleeves where required.

- **Impalco Profiled Sheets for Building.** Imperial Aluminium Company Ltd., Witton, Birmingham 6.

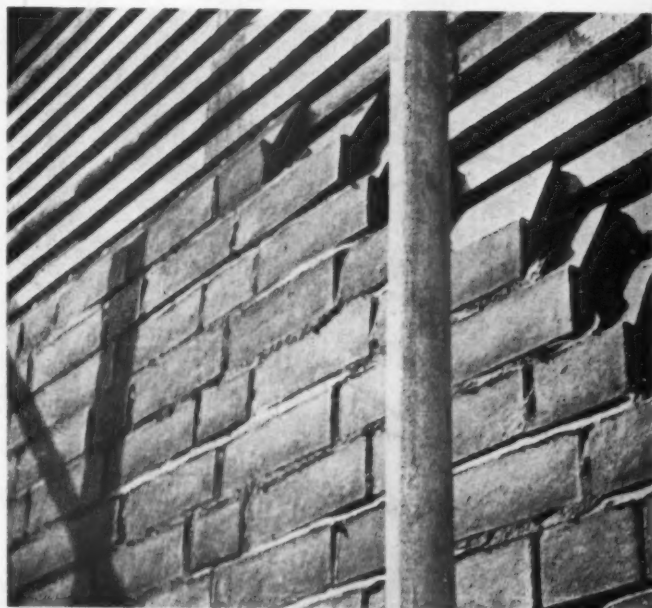
Aluminium sheeting is available in two sections of corrugation in 18 to 24 SWG and lengths from 6ft to 12ft. Troughed aluminium sheets, where the section is angular instead of being curved, is in 20 SWG for roofing and 22 SWG for walls in similar lengths. In addition to this bare and basic information the booklet gives much information on spans, laps (end and side), fixings, ridge and flashing pieces to enable a roof to be fully detailed and specified.

Another booklet gives technical data as to annealing, ductility, etc. for all Impalco Aluminium products.

- **Historical Note on the Langley Museum.** C. G. Dobson. Langley London Limited, 163-7 Borough High Street, London, S.E.1. Telephone: HOP 4444.

The name 'Langley' being now—at least in the London area—synonymous with tiles there was probably no need to bring the word into the title of this interesting and well-produced small book. Mr. Dobson is thoroughly familiar with roofing tiles from many parts of the world so is able to write of Langley's exhibits with warm interest. The first part is about roof coverings in primitive areas—coral slabs in

*Mathematical tiling in process of fixing at Croydon*



Bermuda, large leaves in the Congo, thatch and shingles. The early tiles are illustrated by drawings and photographs, some from the museum and others in use in Asia today. Slates too are shown and described, including a Roman slate used on a villa in Oxfordshire. Examples are also shown of early interlocking tiles. Those other very interesting tiles—mathematical tiles—are shown on old buildings and displayed to show how hanging, bond and pointing were done.

Copies are available on request and could well be used as reading matter in the architect's waiting room.

- **The Dimplex Home Warming Plan.** Dimplex Ltd., Millbrook, Southampton.

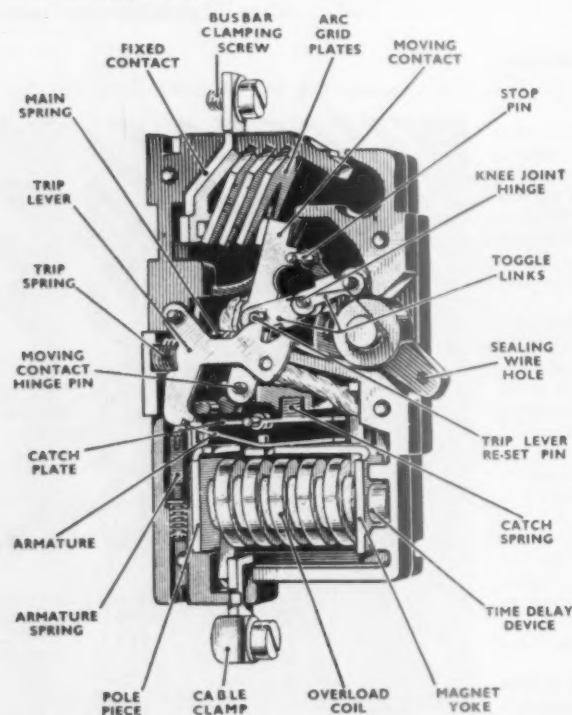
A small booklet is available to enable electrical demands for whole house warming to be estimated by the layman. These are based on 1.2kW per 1,000 cu ft of each room according to the number of external walls. If only 'topping up' is required, about half the loading per room can be allowed. Full descriptions of Dimplex heaters are included in the booklet together with dimensions, loadings and prices.

## CATALOGUES

- **Wallboards.** C. F. Anderson & Son Ltd., Harris Wharf, Graham Street, London, N.1, have issued their Trade Price List of Building Boards, effective from October 1, 1960.

- **Miniature Circuit Breakers.** J. A. Crabtree & Co. Ltd., Lincoln Works, Walsall, Staffs., illustrate and describe the operation and safeguards of these innovations in a small brochure which also gives details of plastics and metal box units and distribution boards.

*Diagram showing interior of the Crabtree domestic Circuit breaker*



- **Furniture.** Ernest Race Ltd., 22 Union Road, Clapham, London, S.W.4, have produced a small brochure showing upholstered furniture of recent design, steel framed and covered with material or hide.

- **Lattice Steel Portal-Frame Buildings.** Coseley Buildings Limited, Lanesfield, Wolverhampton, have a standard range of buildings giving clear spans up to 100ft and eaves heights up to 25ft, which can be supplied and erected including sheeting in many alternative materials. A new leaflet describes the products.

- **Door Gear.** E. Hill Aldam & Co. Ltd., Britannic Works, Red Lion Road, Tolworth, Surbiton, Surrey, have five leaflets available describing additions and improvements to sliding and overhead door gear not contained in their Architectural Catalogue (January 1960 Edition).

- **Chimney Pots.** O.H. Limited, Hog Hill Road, Collier Row, Romford, Essex, have issued a new leaflet describing the 'O.H.' terra cotta anti-down-draught chimney pot which is fully guaranteed to the extent that the makers, in the event of failure to give smoke-free conditions, refund the cost of the pot including erection and dismantling charges.

- **Insulation.** The Cape Asbestos Company Ltd., 114-116 Park Street, London, W.1, have produced a brochure on the insulation of roof space, pipes, ducts, hot water tanks, etc., in a form suitable for the layman and describing Rocksil products and Asbestolux.

- **Building Contracting.** G. E. Wallis & Sons Ltd., 231 Strand, London, W.C.2, have issued a brochure describing the growth of this firm over the past 100 years.

- **Flaxwood Panels.** N. Whiting Ltd., 17 Finsbury Square, London, E.C.2, have available copies of test reports on 'Wieleco' flaxboard panels which show bending strength superior to some chipboards available. The tests include moisture content figures of weight and dimensions.

- **Electric Heating.** E. K. Cole Ltd., 5 Vigo Street, London, W.1, have issued their new catalogue of appliances with price list. These include radiant heaters, convectors, suspension radiant and panel heaters and horticultural heaters.

- **Insulation.** Stillite Products Ltd., 15 Whitehall, London, S.W.1, have issued a catalogue of spun mineral wool insulation in slab, mattress, quilt, felted, pre-formed and wrapping strip form and cylinder jackets. Thermal insulation efficiencies are given as to 7.9lb and 10lb densities and 0 deg F to 800 deg F.

- **Domestic Sliding Door Gear.** Coburn Engineers Ltd., Coburn Works, Peasmarsh, Guildford, Surrey, have issued fixing instructions for their Master gear which is clearly detailed on a drawing.

- **Glass Doors.** Pilkington Brothers Ltd., St. Helens, Lancashire, have issued a binder containing data on ½in and ¾in 'Armourplate' and 'Armourcast' glass doors. This is a lavish production to A4 size and gives all necessary details of fittings and fixings.

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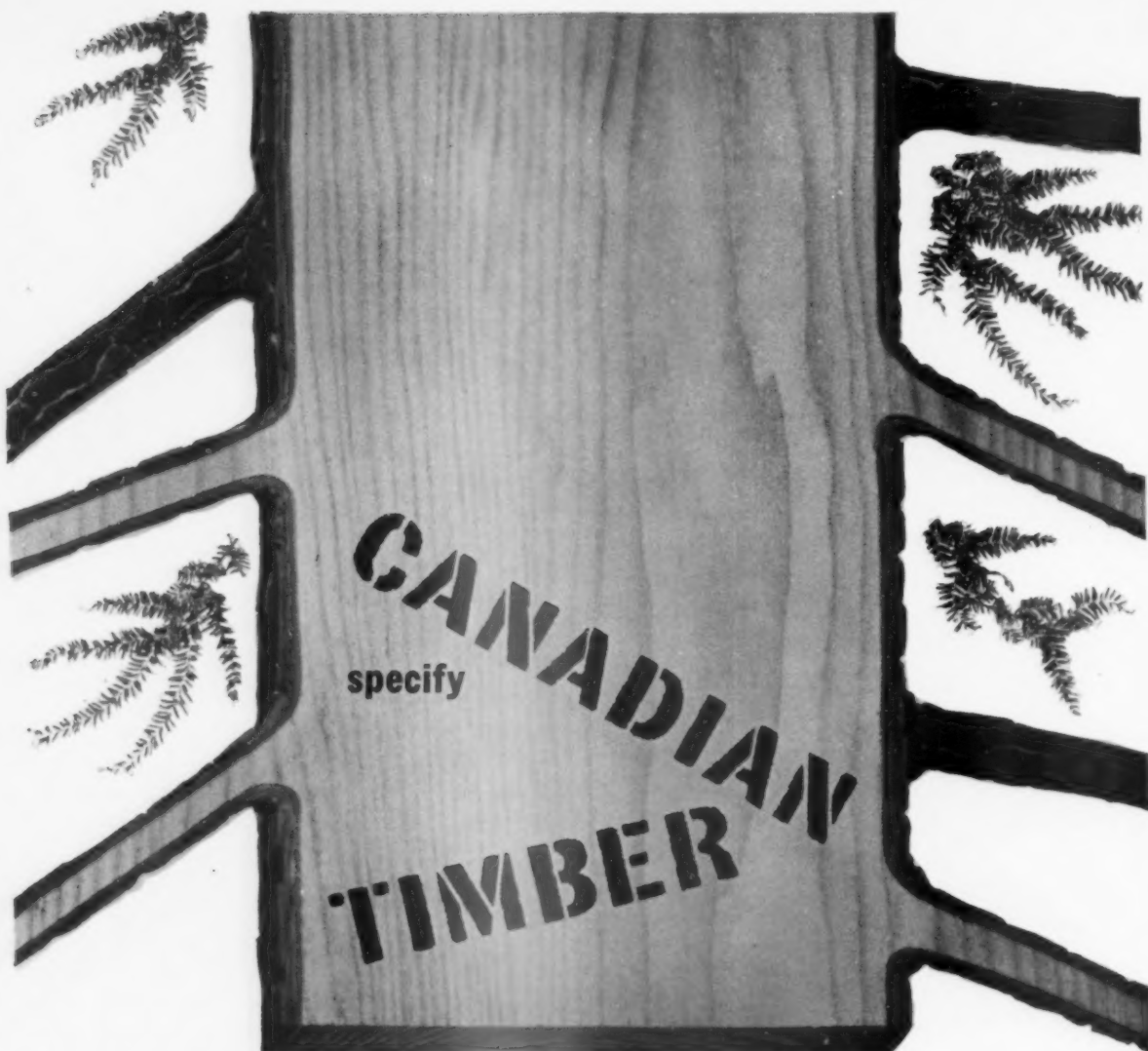
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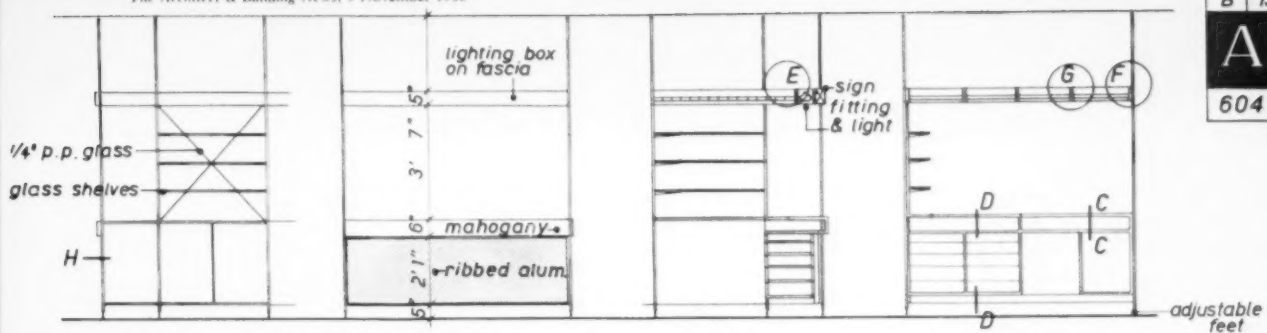


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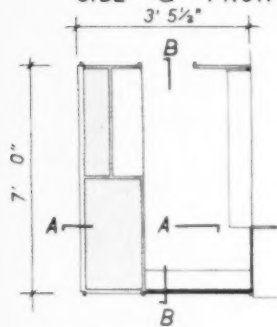
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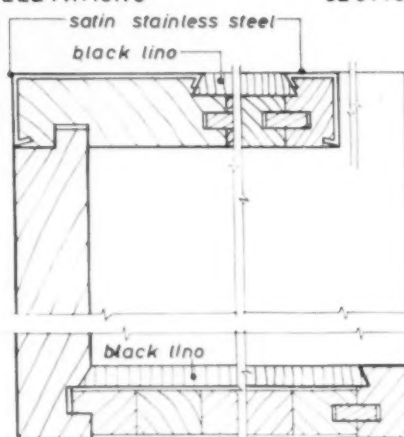
SECTION A-A

SECTION B-B

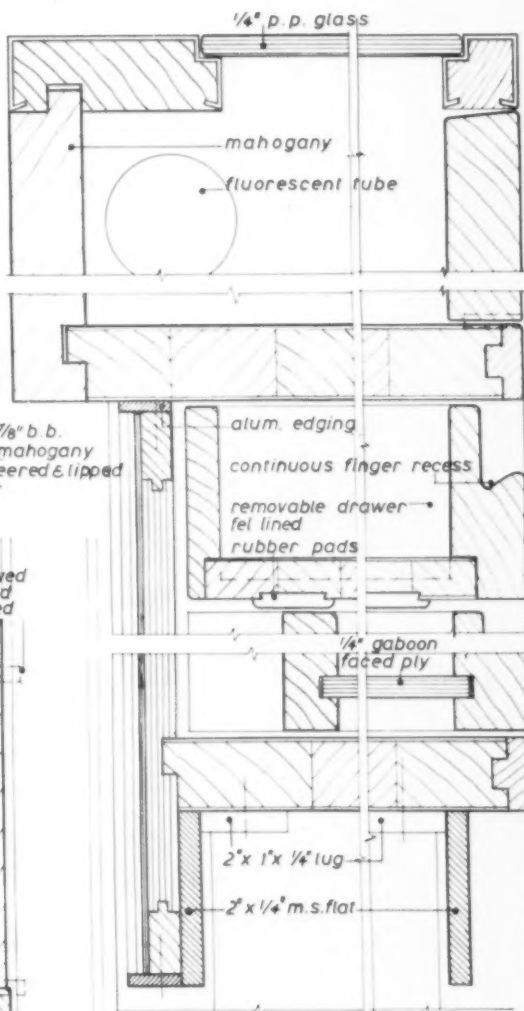


PLAN

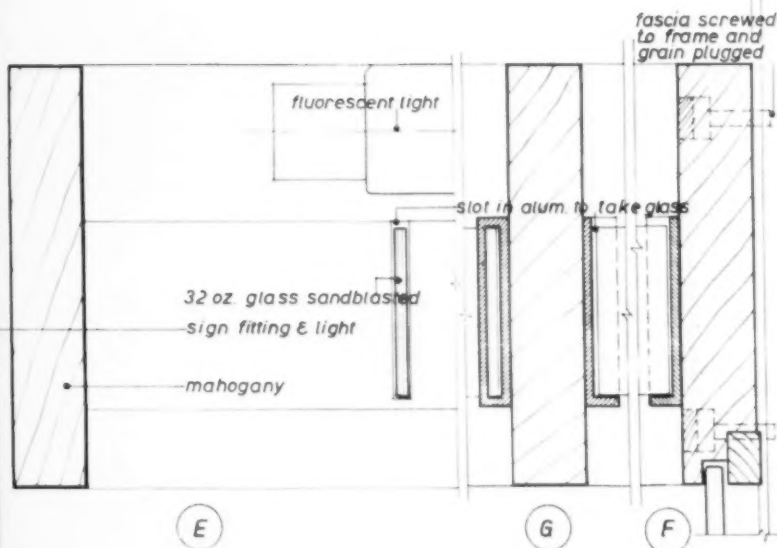
3' 16\"/>



SECTION C-C



SECTION D-D



E

G

F

satin finished  
ribbed alum. sheeting on 3/8\"/>

1 1/8\"/>

double crown poster display  
alum. frame with 3/16\"/>

DETAILS 1/2 FS

PLAN AT (H)



KIOSK, SHOWROOM, REGENT STREET, LONDON

This is one of a pair of kiosks on the lower ground floor of the Austin Reed Showrooms in Regent Street, which are for the sale of theatre tickets, tobacco and toilet requirements. The counter top is finished in black linoleum, with a polished plate glass display area, lit by fluorescent tubes. The front of the counter is faced with a satin finished aluminium ribbed sheeting with a mahogany fascia. All metal work is finished satin chrome. The side of the counter and the adjacent wall are fitted to display theatre posters. Architects: Bryan & Norman Westwood & Partners





*Talbot Hicks*



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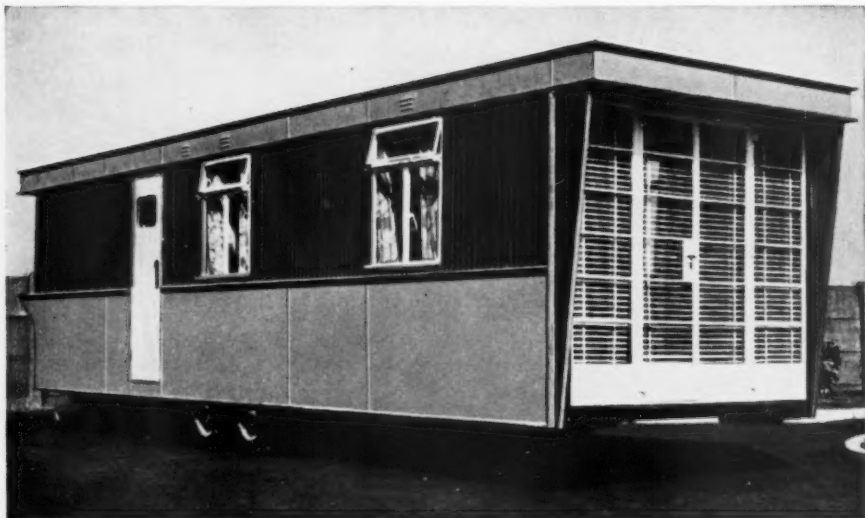
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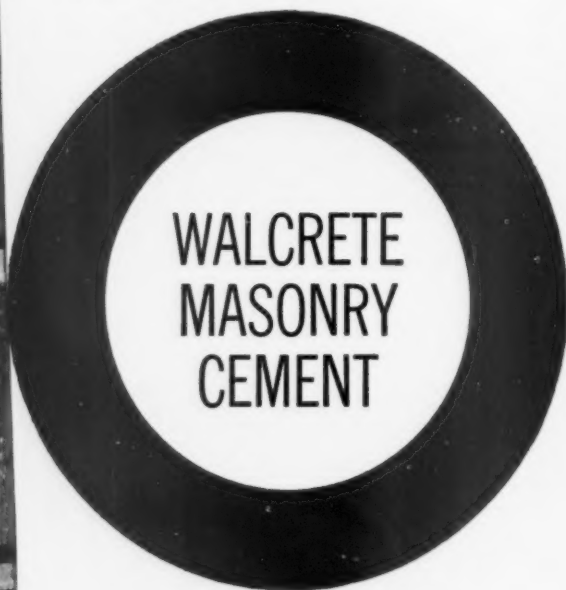
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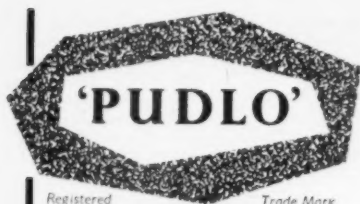
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# Contract News

## WORK IN PROSPECT

**Birkenhead Corporation.** Adaptation of premises for use as a day hospital, cost £20,900.

**Birmingham Corporation** has approved in principle a proposal for a Midlands art centre for young people at Cannon Hill Park for The Cannon Hill Trust, estimated cost £1,000,000.

**Brighton Corporation.** The housing committee has approved sketch plans for 26 bungalows for old people at Moulsecomb and Lower Bevendean, estimated cost £39,000. Tenders are to be invited.

**Cambridge Corporation.** The University Chest Hospital has plans for erection of a science library.

**Chatham B.C.** has approved the preparation of detailed plans for an old persons' home in the Wayfield Road area.

**Chester Corporation.** The parks committee has approved the provision of a crematorium and other buildings at Blacon Cemetery, estimated cost £62,700.

**Cobham (Surrey).** Erection of seven shops with maisonettes is planned for the National Mutual Life Assurance Society, cost £45,000.

**Coventry Corporation** has approved (a) plans for a hostel for mentally disordered persons and a sheltered workshop in Torrington Avenue. The hostel is estimated to cost £63,000 and the workshop £22,000; (b) plans for the proposed multi-storey car park behind Hotel Leofric for 793 vehicles; (c) plans for offices at Curriers Close for Starr Roadways Ltd.; (d) detailed plans for block 'N' at Broadgate to include departmental store for Littlewoods Mail Order Stores Ltd., estimated cost of flats £142,200; (e) outline plans for proposed two-storey premises for Guyver's (Coventry) Ltd.; (f) scheme of alterations to the first floor of the Council House for more adequate accommodation for the Lord Mayor and civic occasions, estimated cost £22,000.

**Croydon Corporation.** The education committee has approved a scheme for (a) changing rooms at Coombe Lodge playing fields, cost £3,500; (b) adaptations to Duppas junior mixed school, Goodwin Road, Waddon, cost £4,900.

**Dumfries-shire C.C.** The education committee has approved in principle the layout of the academy at Annan, cost £400,000.

**Erith, Kent.** Proposed extensions for Submarine Cables Ltd., cost £15,000.



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**Ealing B.C.** The education committee has approved (a) scheme for a school meals servery and improvement of the wash-up unit at Selborne primary school, total estimated cost £2,900; (b) plans for the construction of a youth wing at Walford secondary school, total estimated cost £30,208.

The housing committee has approved (a) scheme for approximately 30 garages in Murray Road; (b) layout for 10 bed-sitting room flats and five garages at 252 Ruislip Road.

**Gateshead B.C.** Proposed erection of an old people's lunch club at Wrekenton, cost £20,000.

**Glasgow Corporation** has approved plans for a building at the junction of Renfrew Street, Rose Street and Cambridge Street for The Commercial and General Investment (Scotland) Ltd.

**Glenrothes (Fife).** Proposed extension to factory for Beckman Instruments Ltd. on Queensway Industrial Estate.

**Greatham (Co. Durham).** Extensions to factory for Cerebos Ltd.

**Grimbsy.** Proposed erection of a factory at Immingham for D. Byford & Co. Ltd.

**Guildford Corporation.** The estates committee has approved plans for (a) shop unit No. 14 for Messrs. Ashcroft & Dore (Jepsons); (b) shop unit No. 11 for Messrs. Glynn. Both at Norfolk House, Upper High Street.

The youth committee has approved layout plans for a building to combine a youth centre and sports pavilion on part of the Stoughton recreation ground.

**Haverfordwest (Pembrokeshire) R.D.C.** has approved plans for a factory at Johnston for A. and E. Arnold and Co.

**Hayes (Middx.).** Rebuilding of Dr. Tripletts C. of E. school, cost £55,000.

**Heston and Isleworth.** The Ministry has approved two-storey extensions at Springwell Road for Read Manufacturing Co. (London) Ltd.

**Hull Corporation.** The education committee has plans for the erection of (a) hostel for the colleges of further education; (b) youth centre at Ferensway.

**Kingston-on-Thames.** Erection of a factory for Delta Technical Services Ltd., cost £35,000.

**Lanark C.C.** has approved plans for extensions to the factory in Highbury Avenue for James Macfarlane and Co. (Pollokshaws) Ltd., cost £2,000.

**Lewisham B.C.** The housing (building) committee has approved layout plans for 45 flats in one four- and five-storey block and one four-storey block with eight garages.

**London C.C.** The education committee has approved (a) proposals for improving Snowfields county primary school, Bermondsey, by providing new sanitary accommodation and modernizing an

existing block, adapting three classrooms to form a nursery classroom with sanitary accommodation, a toy store and an enclosed play-space, total estimated cost £9,610; (b) scheme for improvements to the sanitary accommodation at Laxon county secondary school, Bermondsey, including the erection of a prefabricated classroom hut for use as a commerce room and model office, estimated cost £6,885; (c) plans for an additional classroom at Brandelhow county primary school (Wandsworth, Putney), total estimated cost £5,875.

The further education sub-committee is to (a) provide indoor sports centres at Albion Square, Hackney and West-horne Manor school, Woolwich, cost £45,000; (b) to incorporate youth service accommodation at Daneford secondary school, Bethnal Green and at new secondary schools to be built in Lollard Street, Lambeth, and Whitehorse Lane and Blakesley Street, Stepney; (c) adapt and extend the former Moberly school, used by Paddington recreational institute, cost £45,000; (d) build youth clubs at White City Estate, Hammersmith, Patmore Estate, Battersea and Lambeth, Brandon Estate, Southwark, Woodberry Down Estate, Stoke Newington and Czar Street housing site, Greenwich, estimated cost £20,000 each.

Erection of a two-storey extension to provide additional living accommodation for the Trustees of the Convent of the Cenacle.

**Mansfield Corporation.** The housing committee has approved (a) layout for 10 aged persons' bungalows on the Ravensdale Housing Estate; (b) layout for five three-bedroom houses, two-storey block of 20 two-bedroom flats and 14 garages at Gas Hill and Crow Hill, Pleasley Hill; (c) a scheme for the erection of 24 three-storey flats and 10 brick built garages. Tenders are to be invited.

The highways committee has approved a scheme for public conveniences and a bus shelter at Meden Square, Pleasley. Tenders are to be invited.

**Middlesex C.C.** The fire brigade committee has approved schemes for fire stations at Bury Street and Breakspear Road, Ruislip, and Potts Hill, Northolt, estimated cost £63,000 and £53,825 respectively.

The health committee has approved a scheme for extending the clinic behind the town hall, Hornsey, estimated cost £6,630.

**Tynemouth Corporation.** The town improvement committee has approved a proposal to erect a club house on the Preston playing field for North Shields Rugby Football Club.

## SUBMISSIONS FOR PLANNING AND BYE-LAW APPROVAL

**Acton Corporation.** Plans submitted for (1) erection of (a) warehouse and offices at 287 Acton Lane for Augener Ltd.; (b) parish hall at Oldham Terrace for the RC Diocese; (c) office block in St. Leonards Road and Chandos Road for Joseph Lucas (Industries) Ltd.; (d) offices and storage building in Victoria Road for A. Webster Ltd.; (e) offices and canteen

building at 23-25 Sunbeam Road for Geo. Cohen 600 Group Ltd.; (f) three blocks of four maisonettes and 12 garages at the Acacia Club, Acacia Road, for Tillary Construction Co.; (2) alterations and additions to 24-26 Brouncker Road for Thermo-Plastic Moulders Ltd.; (3) outline extensions to 612 Western Avenue for Chain Garage (Sales) Ltd.

**Ayr Corporation.** Plans submitted for (1) erection of (a) three five-apartment houses with garages in (i) Abbots Way, Doonfoot, for Donald C. McLean, cost £4,750; (ii) Cambusdoon Drive for Gordon O. Marr, cost £7,900; (iii) Baird Road for Thomas Gray, cost £5,000; (b) brick building for use as baker's shop with site for future erection of garage at the junction of Annfield Glen and Wood Park for Belmont Bakery Co. Ltd., cost £4,000; (c) two four-apartment houses with garages on Plots 21 and 44, Laigh Glengall for William Govan & Sons Ltd., cost £6,500; (2) alterations and additions to form games room, kitchen and bar at 10-16 James Street for Ayr Railway Welfare Club, cost £2,500.

**Battersea B.C.** Plans submitted for (1) erection of (a) weighing office and weigh-bridge foundations at 112 Battersea Church Road; (b) temporary building during rebuilding of police station at 219-233 Lavender Hill; (2) extension of dairy and erection of offices, engine rooms and workshops at 55 Sleaford Street and 6-13 Foots Row.

**Oxford C.C.** Plans submitted for (1) erection of (a) three-storey block of 24 flats and 29 private garages in Hollow Way for J. E. Cammell; (b) public sorting building in Mill Road; (2) outline for (a) about three boarding houses in Woodstock Road for St. Edward's school; (b) public service vehicle station in Rewley Road for Thames Valley Traction Co. Ltd.; (c) flats at Napier House, London Road, Hedding-ton, for Heddington school; (d) development in two-storey houses and four-storey block of flats with one-unit garages between Headley Way and Eden Drive for Oxford Corporation; (3) extension of bathrooms, etc., to Manchester College, Mansfield Road; (4) demolition of porter's lodge and erection of three-storey block for students' residential accommodation at Mansfield College; (5) conversion of 251 Woodstock Road into five semi-contained flats for E. Kerry.

**Penrith U.D.C.** Plans submitted for erection of (a) 24 houses and 12 one-unit garages on Scaws Estate for the UDC; (b) store building on Gilwilly Industrial Estate for Gush & Dent Ltd.

**Peterborough Corporation.** Plans submitted for (1) erection of (a) offices in Newark Road for H. J. Firman Ltd.; (b) 14 garages at 11 Welland Road for S. B. Fairchild; (2) extension of warehouse in Padholme Road for A. B. Gibson Ltd.; (3) alterations for office accommodation at the Broadway for Kennings Estates Ltd.

**Redditch U.D.C.** Plans submitted for erection of (a) plant depot and offices in Studley Road for Road Rollers Ltd.; (b) factory in Beoley Road for Wm. Tyers & Co. Ltd.; (c) eight bungalows on St. Peter's Estate, Crabbs Cross, for Annol (Builders) Ltd.; (d) buildings for kitchens at College of Further Education, Ease-more Road, for Worcs. EC.



**St. Pancras B.C.** Plans submitted for (1) erection of (a) warehouse and ancillary office building at 23-30 Starcross Street, 40-48 Coburg Street and 90-100 Drummond Street; (b) building for shops, showrooms, offices and two public houses at 39-45 Tottenham Court Road, 15-23 Windmill Street and 23-28 Percy Street; (c) building for use as offices, storage, etc., on ground floor and three semi-contained flats on three floors above at 1-6 Grafton Crescent; (d) warehouse and office building and formation of access to Goodway at Messrs. G. N. Haden's premises; (e) building for use by the Royal College of Physicians on the site of Someries House and 35-53 Albany Street; (f) building with basement, ground and seven upper floors for use as shops, showrooms and offices with basement car park at 234-250 Euston Road and 165-181 Gower Street; (g) building with basement, ground and 12 upper floors as shops, showrooms and offices with basement car park at 252-280 Euston Road and 2-36 Hampstead Road and Messrs. Sanger's premises in Tolmers Square; (h) shop and office building in Camden High Street; (i) two blocks of residential flats and formation of access at 23 Prince Albert Road and 8 Albert Terrace Mews; (j) shop and office building and parking space for cars at 125-133 Camden High Street; (2) conversion of (a) No. 39 Balmore Street into three semi-contained flats; (b) No. 57 Charlotte Street to form a restaurant on the ground and first floors and residential

unit of accommodation on the second and third floors; (c) Nos. 18 & 19 Chalcot Square into 21 bed-sitting rooms.

**Stretford Corporation.** Plans submitted for erection of (a) three-classroom block at St. Mary's R.C. secondary school, Renton Road, for Rev. Father Greenwood; (b) office, showroom and stores extension at 44 Upper Chorlton Road for Bracegirdle Motors Ltd.; (c) petrol station at 1299-1301 Chester Road for Esso Petroleum Co. Ltd.; (d) fitting shop in Trafford Wharf Road for British Oil & Cake Mills Ltd.

**Surbiton Corporation.** Plans submitted for (1) erection of (a) research laboratories with workshop, drawing office and canteen in Davis Road for Decca Radar Ltd.; (b) bank and office at 401 Hook Road; (c) motor showrooms, stores and offices at 1-3 The Crescent; (d) 32 flats and garages in Adelaide Road; (e) office building for builders' yard in Hook Road; (g) 48 flats and garages in Portsmouth Road and

Brighton Road; (i) factory in Cox Lane for Solartron Instruments Ltd.; (2) extension to (a) two factories in Roebuck Road (i) for Toolworks Ltd., (ii) for Hough Bros. Ltd.; (b) Chessington Evangelical church in Bridge Road; (c) St. Mary's church in Church Lane; (3) rebuilding and extension of store at 125-127 Red Lion Road.

**Sutton Coldfield Corporation.** Plans submitted for (1) erection of (a) three-storey flats in Lichfield Road for Mr. E. W. Ebery; (b) office extension at Reddick Hill for B.M.S. Laminations Ltd.; (c) seven dwellings in Brooks Road for H. Dare & Son; (d) houses and garages in Morven Road, Somerville Estate, for C. M. Brown & Co. Ltd.; (e) medical and dental clinic in Mere Green Road for Warwickshire cc.; (f) six semi-detached bungalows in Maney Hill Road for Forward Midland Building & Contracting Co. Ltd.; (g) three pairs of semi-detached and two detached houses off Kings Road for Messrs. Mee Mulvey Ltd.; (h) 32 residential flats in Lichfield Road/Wentworth Road for Hollier Botteley & Co.; (i) four blocks of flats with 16 garages in Darnelhurst Road for Bryant Estates Ltd.; (2) outline for two blocks of three-storey flats, each with nine flats, in Blackberry Lane for George Green & Son Ltd.; (3) rebuilding of premises in Lichfield Road for Michells & Butlers Ltd.

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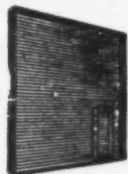
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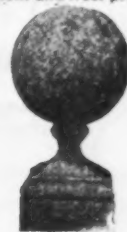
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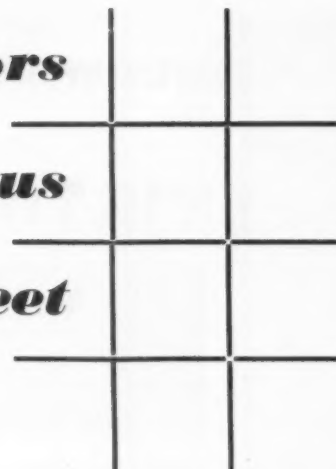
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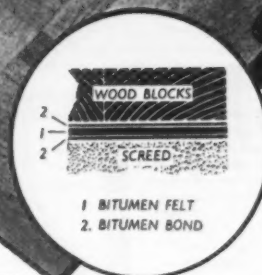
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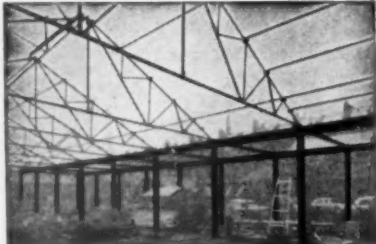
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### Hoddesdon Urban District Council

**APPLICATIONS** are invited for the appointment of Architectural Assistant at a salary in accordance with Grade APT II.

Applicants must have a good experience in architectural design and construction and preference will be given to those who have passed the Intermediate Examination of the Royal Institute of British Architects. The appointment is subject to the Local Government Superannuation Acts, the National Scheme of Conditions of Service, the successful candidate passing a medical examination, and to one month's notice in writing on either side. Housing accommodation will be provided for the successful candidate, if necessary, and a casual user car allowance may be payable. Applications stating present appointment, age, experience and qualifications, together with the names of two referees, must be delivered to the undersigned not later than 25th November, 1960.

Applicants must disclose in writing whether or not they are related to any member or senior officer of the Council. Canvassing in any form will disqualify.

LEONARD G. JONES,  
Clerk of the Council.

Council Offices,  
HODDESDON,  
Herts.  
26th October, 1960.

[7163]

### London County Council

#### ARCHITECT'S DEPARTMENT

VACANCIES exist in the Development Group of the Housing Division for **Architects** (up to £1,250) and **Architectural Assistants** (up to £950). The Group is to be expanded and the work will involve the application of building techniques in experimental building schemes of substantial size.

Starting salary according to experience and qualifications. Particulars and form, from Hubert Bennett, FRIBA, (EK/ABN/2854/11), Architect to the Council, County Hall, S.E.1. [7200]

### County Borough of Blackburn

Borough Engineer and Surveyor's  
Department

**APPLICATIONS** are invited for the appointment of **CHIEF ARCHITECT**. Salary in accordance with Scale 'D' (commencing at £1,710 and rising to £1,975 by three increments of £70 and one of £55). The successful applicant will be responsible, under the direction of the Borough Engineer, for the whole of the Architectural work carried out by the various Committees of the Council, which includes many interesting and varied projects such as the re-development of the Town Centre, New Wholesale and Retail Markets, a scheme for New Abattoirs in addition to the New Schools' Programme, Housing and General Municipal Buildings.

Applicants must have considerable experience in all branches of the profession and be Associate Members of the RIBA.

An allowance is made for the official use of a car, and housing will be available if required.

Application Forms (from the Borough Engineer, Town Hall, Blackburn) are to be returned by the 18th November, 1960.

FRANK SQUIRES,

Town Clerk.

[7192]

**AIR MINISTRY Works Designs Branch** requires in London and Provinces **ARCHITECTURAL ASSISTANTS** with adequate training and drawing office exp. **ONC (Building)** an advantage. Work includes site layouts, sketch plans, working drawings and details for variety of technical and domestic buildings in permanent and semi-permanent construction. Financial assistance and time off given for recognized courses of study. Promotion and pension prospects. Five-day week with 18 days' paid leave per year initially. Overseas tours for which special allowances granted.

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### West Kesteven Rural District Council

#### ARCHITECTURAL ASSISTANT

**APPLICATIONS** are invited for the appointment of an Architectural Assistant in the Surveyor's Department at a salary within APT Grades III and IV (£960 to £1,310 per annum) of the revised National Salary Scales. The commencing salary within the scale will be fixed according to experience and qualifications. Candidates must have passed the final examination of the RIBA or an equivalent examination recognised by the Architects Registration Council. An essential user car allowance for a car not exceeding 1,119 c.c. will be payable, housing accommodation can be made available if required, and 50% of removal expenses will be met by the Council. Candidates from other Local Authorities should have had not less than three years' experience with their existing authorities. The appointment will be subject to the National Scheme of Conditions of Service and to one month's notice on either side. A five-day week is in operation.

Applications, stating age, qualifications and experience, together with the names and addresses of two persons to whom reference may be made, must be delivered to me at Sandon Close, Grantham, not later than Friday the 18th November, 1960.

J. R. MORGAN,

Clerk of the Council  
[7194]

### The Rural District Council of Godstone

#### TOWN PLANNING ASSISTANT

**APPLICATIONS** are invited for the above appointment in the Engineer and Surveyor's Department at a salary in accordance with Grade APT II (£815-£960). A car allowance on the essential user basis is payable for a car not exceeding 1,199 c.c. Candidates should have passed the Intermediate Examination of the Town Planning Institute.

Applications stating age, qualifications and experience, together with the names and addresses of two referees, should reach the undersigned not later than 16th November, 1960.

M. HAWORTH,

Clerk of the Council.

Council Offices,  
Oxted, Surrey.

[7196]

## Official Announcements

### APPOINTMENTS (cont)

**Bracknell Development Corporation**  
APPLICATIONS are invited for the post of **ARCHITECT**, salary range £1,305-£1,565 per annum. Applicants must be Corporate Members of the RIBA. Superannuation schemes, medical examination. Housing available. Apply by 21st November, 1960, giving age, education and qualifications, experience and appointments held (with dates and salaries), and names of two referees, to General Manager (A), Bracknell Development Corporation, Farley Hall, Bracknell, Berks.

[7153]

**The Rural District Council of Godstone**  
**ARCHITECTURAL ASSISTANT**  
APPLICATIONS are invited for the above appointment in the Engineer and Surveyor's Department at a salary within Grade APT I/II (£645-£960 p.a.), commencing salary according to qualifications and experience. Preference will be given to applicants who have passed the Intermediate RIBA examination. Applications stating age, qualifications and experience, together with names and addresses of two referees, should reach the undersigned not later than 16th November, 1960.

M. HAWORTH,  
Clerk of the Council.

Council Offices,  
Oxted, Surrey. [7195]

### ARCHITECTURAL ASSISTANTS AND DRAUGHTSMEN

A large national corporation with world-wide interests requires Architectural Assistants and Senior Draughtsmen at its London headquarters for design on various types of functional buildings. Keen young men will find these vacancies of particular interest and there may be opportunities to travel. Qualifications are not essential but experience and an enthusiastic approach to this type of work will be among the qualities expected of successful applicants. Applications for interview should be made in writing stating age, experience and any other relevant details to: Box No. 3706, c/o Charles Barker & Sons Ltd., Gateway House, London, E.C.4. [7197]

**Borough of Bexley**  
APPLICATIONS are invited for the following appointments:—

(1) **Assistant Architect—Grade APT III** (£960-£1,140 per annum) plus London Weighting. Candidates should be suitably qualified and will primarily be engaged upon school, housing and other municipal projects.

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(2) **Architectural Draughtsman—Grade APT II** (£815-£960 per annum) plus London Weighting. Candidates should be good draughtsmen and have a general knowledge of building construction and specification work.

Form of application and conditions of appointment are obtainable from the Borough Engineer, West Lodge, Broadway, Bexleyheath, Kent, to whom completed applications must be returned by the 5th December, 1960. Canvassing will disqualify.

ARTHUR GOLDFINCH,  
Town Clerk.

[7221]

### TOWN PLANNING OFFICER GOVERNMENT OF TANGANYIKA

To design detailed schemes of the layout and sub-division of Public Land. To prepare Planning Schemes for Local Authorities and to advise the Town and Country Planning Board. Experience in the administration of Planning Law and Regulations would be an advantage.

Contract appointment for one or two tours of 30 to 36 months each with gratuity on satisfactory completion of engagement. Salary range £1,239-£1,863 a year. Children's education allowance. Rented quarters. Free passages. Candidates aged 30-45 must be AMPTI preferably with at least five years' experience, and possess professional qualification in architecture, surveying or engineering.

Write Director of Recruitment, Colonial Office, London, S.W.1, giving full names, age, qualifications and experience, quoting BCD 62/8/01/E1. [7230]

### Borough of Bedford APPOINTMENT OF ASSISTANT QUANTITY SURVEYOR

Grade APT II or III  
(£815-£960 or £960-£1,140)

APPLICANTS, who should be experienced in the working up of Bills of Quantities, preparation of interim valuations and final accounts, have some 'taking off' experience, and should have passed the Intermediate Examination of the RICS or IQS (Final), will be offered appointment in Grade APT III if successful.

An applicant may however be favourably considered and offered Grade APT II if the requisite standard of experience and qualifications has not yet been attained. Such an applicant may qualify for promotion at a future date.

The Q.S. Section is in the charge of a Chartered Quantity Surveyor and the work of the Section includes schools, shops, public offices and other buildings, houses, flats, etc.

The Council is prepared to assist in approved circumstances with housing accommodation and removal expenses. Forms of application may be obtained from the undersigned for return not later than Monday, 21st November, 1960.

F. W. DAWKES,

Borough Engineer and Surveyor.  
Newnham House,  
Horne Lane,  
Bedford. [7202]

### SITE QUANTITY SURVEYORS

required for measuring variations, preparing interim certificates and final account.

The surveyors required are expected to be capable of working under their own initiative and should be experienced.

This position is progressive with excellent prospects in a variety of work.

Applications giving details of age and experience to:

Chief Surveyor,  
GRIGGS & SON LTD.,  
56 Victoria St.,  
London, S.W.1

### Borough of Enfield

Borough Engineer & Surveyor's Department.

Non-County Borough in the County of Middlesex—Population 109,700. Area 12,400 acres.

APPLICATIONS are invited, from suitably qualified persons, for the following permanent appointments:

1. **ASSISTANT ARCHITECT—APT IV** —£1,140-£1,310 plus London Weighting.
2. **ARCHITECTURAL ASSISTANTS** (2 No.)—APT III—£960-£1,140 plus London Weighting.

The commencing salary will be fixed at points within the scale commensurate with qualifications and experience.

There is a large varied programme of work, including the redevelopment of Clearance Areas and other areas scheduled for Comprehensive Development.

**HOUSING ACCOMMODATION** may be made available in appropriate cases. The Council is also prepared to consider 100% advances to successful applicants for house purchase within the Borough. Saturday mornings are normally free from duty.

Application forms, obtainable from H. D. Peake, MSc(Eng), MICE, Borough Engineer and Surveyor, 7 Little Park Gardens, Enfield, Middlesex, must be delivered to the undersigned not later than THURSDAY, 24th NOVEMBER, 1960.

CYRIL E. C. R. PLATTEN,  
Town Clerk.

Public Offices,  
Gentleman's Row,  
Enfield, Middx.  
25 October, 1960.

[7198]

### City of Manchester

APPLICATIONS invited for the following permanent positions in the office of the City Architect:

- (a) **Senior Assistant Architect:** APT Grade V, £1,310 to £1,480 per annum.
- (b) **Assistant Architect:** APT Grade IV, £1,140 to £1,310 per annum.
- (c) **Senior Assistant Structural Engineer:** APT Grade V, £1,310 to £1,480 per annum.
- (d) **Senior Assistant Structural Engineer:** APT Grade IV, £1,140 to £1,310 per annum.
- (e) **Assistant Structural Engineer:** Special Grade £840 to £1,145 per annum.
- (f) **Senior Assistant Quantity Surveyor:** APT Grade IV, £1,140 to £1,310 per annum.

(g) **Assistant Heating, Ventilating and Mechanical Engineer:** Special Grade £840 to £1,145 per annum.

(h) **Assistant Heating, Ventilating and Mechanical Engineer:** APT Grade III, £960 to £1,140 per annum.

(i) **Assistant Electrical Engineer:** Special Grade £840 to £1,145 per annum.

This department has an extensive programme of municipal building work ahead comprising new abattoirs, libraries, schools, technical colleges, aged persons' homes, etc. Interesting and varied work with excellent opportunities for promotion on merit.

Commencing salary within appropriate grades fixed according to qualifications and experience.

Five-day week. Housing accommodation may be provided for a limited period. Removal expenses allowed.

Forms of application from the City Architect, Town Hall, Manchester, 2 returnable by 21st November, 1960.

[7212]

## Official Announcements

### APPOINTMENTS (cont)

#### Beeston and Stapleford Urban District Council TEMPORARY ARCHITECTURAL ASSISTANTS

£1,500 per annum will be paid to suitably qualified Architects required for work in connection with the design and planning of a Covered Swimming Bath comprising two Pools.

Candidates should have good design ability, with experience in contemporary design and detailing.

Applications stating age, qualifications and experience, together with particulars of present and previous appointments and names and addresses of two referees, must be received by the Housing Architect, Town Hall, Beeston, Nottingham, not later than the 22nd November, 1960.

H. D. JEFFRIES,

Clerk.

[7226]

#### County Borough of East Ham ARCHITECTURAL ASSISTANTS APT I or II. Salary up to £1,000 per annum (according to qualifications)

Subsistence allowances may be granted over a reasonable period to the persons appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Further details and application forms returnable by 25th November, 1960, from the Town Clerk, Town Hall, E.6. [7223]

#### County Borough of East Ham Borough Engineer's Department APPLICATIONS are invited for the following temporary appointments: SENIOR ASSISTANT ARCHITECTS— GRADE IV, £1,185-£1,355

Salaries in excess of the minima may be paid according to qualifications and experience. The appointments are for work on a new Technical College and are expected to be for a period of not less than two years.

Further details and application forms returnable by 25th November, 1960, from the Town Clerk, Town Hall, East Ham, E.6. [7225]

#### County Borough of East Ham SENIOR ASSISTANT ARCHITECT— APT IV—£1,185-£1,355

Salary in excess of the minimum may be paid according to qualifications and experience. A subsistence allowance may be granted over a reasonable period to the person appointed if unable to obtain suitable housing accommodation, necessitating the maintenance of two homes.

Further details and application forms returnable by 25th November, 1960, from the Town Clerk, Town Hall, E.6. [7224]

#### AUSTRALIA THE UNIVERSITY OF NEW SOUTH WALES, SYDNEY SENIOR LECTURER SCHOOL OF ARCHITECTURE

The University invites applications for appointment to the position of Senior Lecturer in the School of Architecture.

Salary: £A2,563 range £A3,013 per annum.

Commencing salary according to qualifications and experience.

Applicants must be registered Architects and possess a degree, diploma or equivalent qualifications and be eligible for membership of RIBA.

The successful applicant will be responsible to the Head of the School for the syllabus and conduct of the courses and classes in Building Construction. In addition to lecturing and conducting studio work in aspects of materials, components and construction techniques for multi-storeyed buildings, the senior lecturer will be required to supervise and co-ordinate the activities of other members of staff concerned with the subject.

First-class ship fares to Sydney of appointee and his family will be paid.

Subject to passing a medical examination, the appointee will be eligible to contribute to State Superannuation Fund.

The appointee will be eligible for 12 months' study leave on full salary after six years' service.

Four copies of applications, including the names of two referees, should be lodged with the Agent General for New South Wales, 56-57 Strand, London, W.C.2, and a copy forwarded by air mail in an envelope marked 'University Appointment', to the Bursar, Box 1 Post Office, Kensington, New South Wales, Australia, before 23rd December, 1960. [7228]

#### The County Council of the County of Wigtown

##### County Architect's Department

APPLICATIONS are invited for the following permanent appointments:—

(a) **Assistant Architects.** Salary scale—£1,048 x £63(4) to £1,300.

Applicants must be ARIBA, having some experience preferably in design and construction of schools.

(b) **Architectural Assistants.** Salary scale—£805 to £915.

Applicants must have passed the Intermediate examination of the RIBA.

(c) **Architectural Draughtsmen.** Salary scale—£675 to £795.

Placing on scales according to experience. Housing accommodation may be provided. Medical examination. Superannuation.

Applications, stating age, particulars of experience and qualifications and giving the names of two referees should be lodged with the undersigned within 14 days of the date of publication of this advertisement.

D. A. AITKEN,  
County Clerk.

County Offices,  
Stranraer.  
2nd November, 1960

[7218]

#### County Borough of Walsall PUBLIC WORKS DEPARTMENT

APPLICATIONS are invited from suitably qualified persons for the following appointments in the Architect's Section of the Public Works Department:

(a) **PRINCIPAL ASSISTANT ARCHITECT,** Grade APT V (£1,310-£1,480).

(b) **SENIOR ASSISTANT ARCHITECT,** Grade APT IV (£1,140-£1,310).

The department is engaged on an extensive programme of Architectural work which allows considerable scope for imaginative design on projects which include comprehensive Housing developments incorporating multi-storey flats; an education programme including a comprehensive School, College of Art and a Youth Centre; and extensive Central Area Redevelopment embracing Shops, Offices and Police Headquarters, Law Courts and other buildings associated with a proposed Two-tier Ring Road.

All posts are superannuated and subject to a medical examination. Applicants should disclose if they are related to a member or officer of the Council. Housing accommodation will be made available if required.

Applications stating age, present position, salary, qualifications, and details of experience and previous appointments, and the names of two referees, should be submitted to reach the undersigned by Wednesday, 16th November, 1960.

M. E. HABERSON,  
Borough Engineer and Surveyor.  
Council House,  
Walsall.

[7227]

#### ARCHITECTURAL APPOINT- MENTS VACANT

**ARCHITECTURAL ASSISTANT,** London. Final standard. Industrial and commercial. Progressive and interesting. Salary according to experience and ability. Box 3667. [0079]

**POOLE, DORSET**—Architectural Assistants required, salaries £600 to £1,000. W. Leslie Jones & Partners, 241a, High Street. [7132]

### TAYLOR WOODROW CONSTRUCTION LIMITED



Require

## ARCHITECTS

of Professional or Final Standard who are able to handle contracts from start to completion, in an expanding department working on varied Industrial and Commercial Schemes.

These posts offer opportunities for appreciable individual responsibility.

Interviews can be arranged at any time including evenings and Saturday mornings with travelling expenses paid.

Write giving details of career to:

Personnel Manager,  
345 Ruislip Road,  
Southall, Middlesex



## Official Announcements

### ARCHITECTURAL APPOINT- MENTS VACANT (cont)

**ASSISTANT ARCHITECTS** required for staffing a new office opening in Southampton for work on interesting programmes for Universities, the War Department and Ecclesiastical projects. Juniors also required.

Apply stating age, qualifications, experience and salary required to Robert Potter, FRIBA, and Richard Hare, BArch, ARIBA, of De Vaux House, Salisbury. [0337]

**HOWARD V. LOBB & PARTNERS** require assistant architects. Salaries would be between £750 and £1,250 per year. Please write to 20 Gower Street, London, W.C.1. [0352]

**ARCHITECTURAL ASSISTANT** required with at least two years' office experience. Apply in writing to Thomas Mitchell & Partners, 20 Bedford Square, London, W.C.1. [0916]

**WEST END OFFICE** requires Assistant Architects of Final and Intermediate Standards for interesting industrial projects in Home Counties. Good salaries offered to men with initiative and ability. Bonus scheme, five-day week, holiday arrangements honoured. Box 0627. [0380]

**ARCHITECTURAL ASSISTANT**, Intermediate standard. Busy London office. Good prospects. Box 3668. [0080]

**DEVEREUX & DAVIES** require capable and enthusiastic assistant architects, salary £1,000 per annum or according to experience and ability.—Devereux & Davies, 3 Gower Street, Bedford Square, London, W.C.1. [0660]

**ARCHITECTURAL ASSISTANTS** required immediately. Final and Intermediate standards. Varied and interesting work, including large scale comprehensive housing schemes and high buildings. Write to COLLCUTT & HAMP, 86 Prince Albert Road, Regents Park, N.W.8, or telephone PRImrose 5157. [7135]

**ARCHITECTURAL ASSISTANTS** of intermediate or higher standard who are looking for some really interesting work where wide experience can be gained, should apply to George, Trew & Dunn at their new offices, 50 Eastbourne Terrace, W.2. [7122]

**ARCHITECTURAL ASSISTANTS** of final standard required immediately for busy country practice with varied programme of work. Some office experience essential. Experience in country house and ecclesiastical work an advantage. Salary by arrangement. Write stating experience and salary required to Forsyth Lawson, Cunningham & Partners, 30 Horse Fair, Banbury, Oxon. [7127]

**ELIE MAYORCAS** requires architectural assistants with a minimum of three years' office experience in this country. Write, giving brief particulars of architectural education and experience, and salary required, to: 13 David Mews, Baker Street, W.1. [0360]

**QUALIFIED ARCHITECTS** looking for some really interesting new work should apply to George, Trew & Dunn at their new offices, 50 Eastbourne Terrace, W.2. [7121]

**BASIL SPENCE & PARTNERS** require qualified and experienced Architects to fill positions of responsibility on a major building programme. Write to 48 Queen Anne Street, W.1, stating experience and salary required. [0740]

**WANTED ARCHITECTURAL ASSISTANTS**, qualified and inter-standard. Interesting responsible work—Schools, Factories, Hospitals, Churches, etc., Pension Scheme. Apply to Geoffrey A. Rowe, ARIBA, Abbey & Hanson, 11 Cloth Hall Street, Huddersfield. Tel.: 225. [7193]

**ASSISTANT ARCHITECT** required by Hasker & Hall, for responsible position in their London Office, 13 Welbeck Street, W.1. (WEL.0061). [0833]

**SENIOR ASSISTANT** required by Hasker & Hall, in their office in Warwickshire. Good salary, with scope for initiative and responsibility.

Write Longdon House, High Street, Knowle, or telephone Knowle (Birmingham) 3502. [0834]

**DESMOND HALL** requires full time Assistants in Beaconsfield, and qualified man to take charge of Daventry Office. Apply Beaconsfield 1366. [7199]

**ASSISTANTS** of intermediate standard or recently qualified, preferably with some office experience, required for offices in Cirencester and Wantage. Applications in writing stating full details of experience, qualifications and salary required to:—Pyle and Saint, Chartered Architects and Quantity Surveyors, Thomas Street House, Cirencester, Gloucestershire. [7201]

**SENIOR ARCHITECTURAL DRAUGHTSMAN** required in expanding London Chartered Surveyors practice, capable of producing finished detailed drawings, with experience in design and construction of commercial and industrial buildings desirable. Salary according to age and experience. Box No. 2481. [7205]

**GUILDFORD ARCHITECTS** urgently require Qualified and Unqualified Assistants to work on projects of considerable interest. An opportunity exists for applicants living or wishing to live in Surrey to work locally in a pleasant atmosphere and at a good salary. Would applicants please reply stating age, experience and salary required to Malcolm Peck, Roberts & Associates, 15 Friary Street, Guildford, Surrey. (Guildford 66363). [7206]

**ASSISTANT** required Intermediate to Final Standard, five-day week. Write with full particulars to Reginald H. Gallan- naugh & Partners, 54 Queen Anne Street, London, W.1. [7208]

**RICHARDSON & McLAUGHLAN**, 13 Mansfield Street, London, W.1. Langham 5984, require ASSISTANTS for busy practice to work on Office Buildings, Banks, Flats and Stores. Enthusiasm and ability essential but qualifications not important. Appropriate salary and luncheon vouchers. Write or telephone without delay if you wish to join this thriving organisation. [7214]

**NORTHOLT AIRPORT**. Private office urgently requires ARCHITECTURAL ASSISTANTS and DRAUGHTSMEN on rush job for U.S. Air Force. Telephone Geoffrey Pennell, ARIBA, Viking 2300 Extn. 299 for appointment. [7215]

**QUALIFIED ARCHITECT** required by London firm to work in their Nigerian office. Varied and interesting projects, good salary, pleasant location and conditions. Apply: J. E. K. Harrison, FRIBA, Eagle House, High Street, Wimbledon, S.W.18. Tel.: WIM. 4244. [7219]

**£825—LONDON**. ASSISTANT required to do a primary school and an office block. Moore Simpson & Partners, 34 Bedford Row, W.C.1. CHA 7252. [7209]

**EXPERIENCED ARCHITECTURAL ASSISTANT** required for busy West End office. General practice but mainly office and commercial projects. Bernard Gold & Partners, 4/6 Savile Row, W.1. REGent 7551. [7207]

**ARCHITECTS** (Jackson & Edmonds) have vacancies in all salary grades up to £1,100 per annum in London and Birmingham Offices. These appointments participate in a Pension Scheme after the first twelve months' service. These vacancies include opportunities for students in training to obtain practical experience on the wide variety of work in the office which includes civic buildings, university buildings and schools, industrial and military establishments, swimming baths and other recreational provisions and various projects of urban renewal. Write or telephone for an interview to Jackson & Edmonds, 30 Gloucester Place, London, W.1 (Hunter 1485) or 116 Colmore Row, Birmingham 3 (Central 6404-8). [7220]

**TWO FIRST-CLASS ARCHITECTURAL ASSISTANTS** required. Salary range £1,250-£1,750 per annum, depending upon experience. Write with fullest details of experience Box 2500. [0839]

**DENYS LADDUN & PARTNERS** require qualified and experienced ARCHITECTS to fill positions of responsibility. Salaries from £1,100 p.a., according to ability and experience. Write to 3 Albany Terrace, N.W.1, or telephone HUNter 1822 for an appointment. [7222]

**COOK, CULLING & ILLINGWORTH** require experienced ASSISTANT ARCHITECT for busy industrial practice. Pleasant conditions. House available. Apply: Meeting Lane, Gold Street, KETTERING. [7217]

**ARCHITECTURAL ASSISTANTS** required—Pre and Post Intermediate. One day a week for full-time study. Write with details to: D. Plaskett Marshall & Partners, 59 Gordon Square, W.C.1. [7213]

**ARCHITECTS' ASSISTANTS** required. Experienced in running commercial contracts. Interesting work including new shopping centres in provincial towns. Five-day week, superannuation fund and other benefits. Good salary according to experience. Apply: Eric H. Davie, FRIBA, AMTPI, 77 Grosvenor Street, London, W.1 (MAYfair 7666). [7210]

**ARCHITECTURAL ASSISTANTS** required. Final or Intermediate. Five-day week, interesting and varied work. State age, experience, salary and availability in confidence: William Roseveare, Sherwell House, Tavistock Road, Plymouth. [7211]

**A VACANCY** occurs in the West End Branch of large provincial Architectural Practice, for an assistant at Intermediate standard. The post offers considerable scope on varied projects. Five day week, Luncheon Vouchers. Write giving particulars of age, experience and salary required, to Fox No. 2485. [0836]

**A QUALIFIED** Architectural Assistant required immediately in Home Counties office. Successful applicant will have the opportunity of working on widely varying industrial, commercial and housing schemes. Five day week. Write full particulars to Box 2486. [0837]

**EXPERIENCED ARCHITECTURAL ASSISTANT** required to work on interesting contracts of Hotel and Motel Developments in London and Provinces. Apply giving particulars of experience and salary required to Newman Levinson & Partners, 9 Mansfield Street, Portland Place, London, W.1 or Telephone: Langham 9251 for appointment. [7189]

**INTERESTING** and varied small practice urgently requires Senior and Junior Assistant for high quality work—not industrial. Telephone or write Bird & Tyler, 13 Welbeck Street, W.1. Wel. 0882. [7162]

## Official Announcements

### ARCHITECTURAL APPOINT- MENTS VACANT (cont)

**J. M. AUSTIN-SMITH AND PARTNERS** require fully qualified Architectural Assistants with office experience and the ability and knowledge to design, run and supervise sizeable contracts on their own initiative. These contracts will commence early in the New Year. Salary according to age (limit 35) and experience. Apply in writing giving all relevant details to 29 Sackville Street, London, W.1. [7134]

**EXPERIENCED ASSISTANT ARCHITECT** required to carry out a programme of additions and alterations to Hospitals and other work. Responsible position. Age preferably over 30. Salary in the range of £1,200 to £1,500 according to ability. Three weeks' holiday with pay. Luncheon Vouchers. London W.1 area. Reply to Box 2379. [7149]

**URGENTLY REQUIRED—ARCHITECTURAL ASSISTANTS AND DRAUGHTSMEN**, all standards, but must be able to work with minimum supervision. Small but extremely busy West End Office. E. Norman-Bailey & Partners. Ring VICTORIA 7088 for appointment. [7181]

**BRIGHTON & HOVE.** Experienced ASSISTANTS in all grades required. Details please to H. Hubbard Ford & Associates, 51 Church Road, Hove, 3, Sussex. [7184]

**WELLS, HICKMAN & PARTNERS** require ARCHITECTURAL ASSISTANTS. Salaries £700 to £1,000 according to ability and experience. Please ring Terminus 1404 for appointment. [7178]

**RICHARD SHEPPARD, ROBSON & PARTNERS** require ASSISTANTS of Intermediate and final standard; salary range £750-£1,000 according to ability. 5 Southampton Place, W.C.1. CHANCERY 4261. [7179]

**J. M. AUSTIN-SMITH & PARTNERS** require fully qualified ARCHITECTURAL ASSISTANTS with office experience and the ability and knowledge to design, run and supervise sizeable contracts on their own initiative. These contracts will commence early in the New Year. Salary according to age (limit 35) and experience. Apply in writing giving all relevant details to 29 Sackville Street, London, W.1. [7167]

**LOUIS DE SOISSONS, PEACOCK, HODGES, ROBERTSON & FRASER** require competent Assistants, both senior and junior, for appointments in their Exeter and Plymouth Offices; good salaries will be offered to suitable applicants. Applications giving details of age, training and experience, should be sent to 12 Baring Crescent, Exeter. [7152]

**WILLIAM H. ROBBINS, ARIBA**, requires ARCHITECTURAL ASSISTANTS of Final and Intermediate standard for interesting work in expanding office. Applicants should be experienced in design and construction and taking responsibility. Excellent opportunity of advancement; salary range from £750 to £1,400 per annum according to experience. Five-day week. Apply to 77 Wigmore Street, London, W.1. WELbeck 0274/5. [0832]

**SENIOR ASSISTANT** required, Final RIBA standard, to take charge of a number of interesting and varied jobs in City Architects' office. Salary by arrangement. Vigers & Co., 4 Frederick's Place, Old Jewry, E.C.2. [7168]

**SCHERRER AND HICKS**, 19 Cavendish Square, W.1 require immediately Assistants of Intermediate to Final Standard. Good opportunities for men with experience and initiative. Salary range £700 to £1,000. [7188]

**ASSISTANT ARCHITECT—Birmingham Co-operative Society** require the services of a competent ASSISTANT ARCHITECT. Applicants required to be conversant with both commercial and industrial premises and be qualified and capable of accepting responsibility. Salary commensurate with qualifications and ability. Applications to Personnel Officer, Birmingham Co-operative Society Ltd., Castle Street (off High Street), Birmingham 4. [7154]

## Miscellaneous Announcements

**Rate** • 1/9d per line minimum 3/6d, average line 6 words. Each paragraph charged separately.

**Situations wanted** • advertisements are accepted at the specially reduced rate of 6d per line minimum 1/6d

**Box Numbers** • add two words plus 1s for registration and forwarding replies which should be addressed c/o "The Architect & Building News," Dorset House, Stamford Street, London, S.E.1.

**Semi-display** • advertisements with centralized lines are charged at 25s per inch, and pro rata, minimum half inch.

**Press Day** • Monday. Remittances payable to Iliffe & Sons Ltd., Dorset House, Stamford Street, London, S.E.1.

NO RESPONSIBILITY ACCEPTED FOR ERRORS

### SITUATIONS VACANT

**ARCHITECTURAL REPRESENTATIVE**  
**JENSON & NICHOLSON LTD.** require a Representative to call on Architects in the London area. Age 25-45. Preferably with some knowledge of painting practice and essentially already in contact with Architects and Specifying Authorities. Although selling experience is not essential applicants require to be good mixers and of good appearance. Applications should be addressed in writing, giving full particulars, to the Personnel Manager, Jenson & Nicholson Ltd., Jenson House, Carpenters Road, Stratford, E.15, quoting Ref. B.05. [7216]

### WORK WANTED

**EXCAVATION** sub-contracts, site development, overburden removal, clay getting, earth dam construction, etc. Technical staff available to analyse, programme and price complex projects. Particular attention given to finish and compaction. D.9, D.8, TD.18 and TD.14 scrapers, excavators, loading shovels and lorries available with competent and imaginative supervision for execution of work. Also interested in overseas projects calling for not exceeding 10,000yd per week output. Dick Hampton, Blacknest, Alton, Hants. Tel.: Bentley 2241. [0334]

### SITUATIONS WANTED

**SENIOR ARCHITECT** experienced in Industrial and Hospital work, used to working independently on large projects and co-ordinating the work of Structural Heating and Ventilating, Mechanical and Specialist Engineers, requires a position in an office preferably situated within 20 miles Berkhamstead, Herts. Salary, £1,600 minimum with usual benefits. Box 2502. [7231]

### BUILDINGS FOR SALE

**SECOND-HAND** Sectional Timber Buildings, 24ft x 12ft, £102; 30ft x 15ft, £138; 40ft x 18ft, £192; 60ft x 20ft, £302, floors extra, delivery included 100 miles. Also similar new buildings; lists. Universal Supplies, Crabtree Manorway, Belvedere, Kent (Erith 32948). [0760]

### EDUCATIONAL

**GUARANTEED EXAMINATION COACHING** for AMICE, RIBA, RICS, IQS, IMunE, IStructE, etc. Courses in all aspects of Architecture, Building, Draughtsmanship, Surveying, Civil, Municipal, Structural and Sanitary Engineering. No books to buy. Write for Free Prospectus stating subject to: I.C.S., Intertext House, Parkgate Road (Dept. 518), London, S.W.11. [0348]

### MISCELLANEOUS

**LAND ROVERS.** Write for details of our special semi-station wagons, safari wagons, cara-wagon and 12-seater station wagon. 11 models available. R. J. Searle Ltd., Thames Street, Sunbury. Tel. 3014-3867. [0831]

### SERVICES OFFERED

**ARCHITECTURAL AND VISUAL PLANNING MODELS**, prototype design and development. Exhibition stands and animated light displays. Consult: John Evans and Associates, East Gate House, Cheyne Walk, Northampton. [0351]

**PLUMBING, DRAINAGE** and Water Services Schemes designed by fully qualified engineers having unrivalled knowledge of Tall Buildings and latest techniques. General arrangement drawings only or fully detailed schemes and quantities. Strictly confidential. Box 2422. [7191]

**TRANSLATIONS** from and into all languages by technical, publicity and legal experts.

Tenders, agreements, descriptions, conference papers, research articles, instruction manuals, publicity matter. **OLYMPIA TRANSLATION SERVICE**, 29 Russell Gardens, London, N.W.11. MEAdway 2282. [7045]

## Miscellaneous Announcements

### SERVICES OFFERED (cont)

**EXPERIENCED** Shopfitting Designer offers efficient free-lance service for design plans, perspectives and surveys. All shops, interiors and showrooms. Jan Berg, LSIA, 172 Farley Road, Selsdon, Croydon. Telephone, Sanderstead 3924.

[7062]

**DRAUGHTSMAN/SURVEYOR** (Qualified) offers free lance services. Drawings prepared from roughs quickly and accurately. Specifications surveys. Box 2480.

[7203]

### OFFICES TO LET

**STOKE NEWINGTON, N.16.** Modern accommodation. Approx. 3,000 sq ft over busy Shopping Parade. Apply, George Ellis & Sons, 354 High Road, N.17. Tel: TOT 3870/8033. [7229]

### BOOKS

**RECENTLY PUBLISHED ARCHITECTURAL BOOKS** for sale at half price. Send for list. Box 2479. [7204]

**MATERIAL HANDLING IN WORKS STORES:** The Fork-Lift Truck and Pallet System. Second edition. By L. J. Hoefkens. Shows how the use of fork-lift trucks and pallets in industrial stores can increase production, utilize floor space more effectively, help control of movement and reduce costs. Includes a description of a system actually operated

in a modern factory. 18s net from all booksellers. By post 19s 0d from The Publishing Department, Dorset House, Stamford Street, London, S.E.1.

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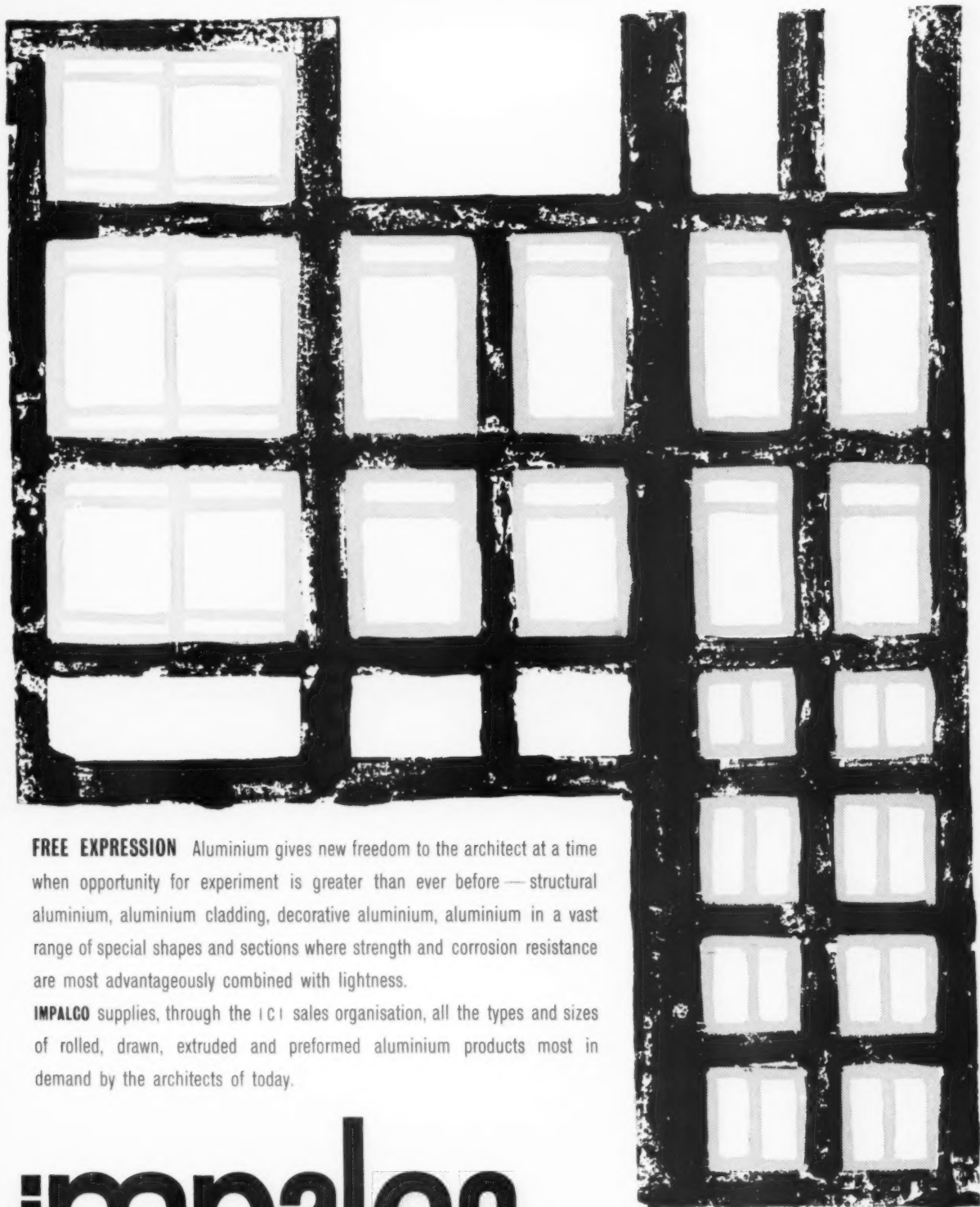
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